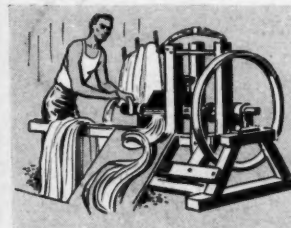


ATLANTIC FISHERMAN

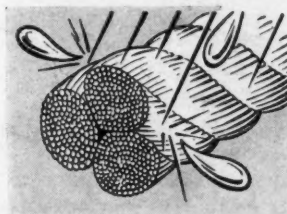
JANUARY
1952



Abaca — first cousin to the banana plant — has been introduced into South America, the West Indies, Sumatra and Borneo, but it is cultivated most successfully in the Philippines.



Finer Grades of Manila hemp contain strands 6 to 12 feet long. Two natives cutting and stripping Abaca plants can produce from 25 lbs. to 250 lbs. of fibre a day, depending on their equipment.



Raw Manila Fibre is highly absorbent and can soak up to 40% of its weight in water. Columbian Pure Manila Rope, of course, is thoroughly water-proofed — by an exclusive process which seals it against decay.

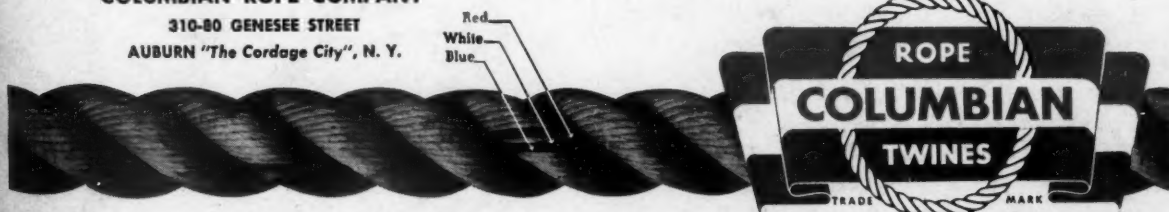
First Step to a Finer Rope

The world's finest Manila hemp (Abaca) comes from the Philippines. Here, tropic sun, moist soil and heavy rains encourage Abaca plants to grow as high as 25 feet. Natives chop down the stalks—strip the fibre from the broad leaf-stalks—scrape off the pulp—and hang the woody fibre in the broiling sun to dry.

Columbian's staff of resident buyers in our grading plants at Davao, Cebu, Tacloban and Tigaon select the choicest crops. It is this higher-quality Manila fibre that is processed into Columbian Rope.

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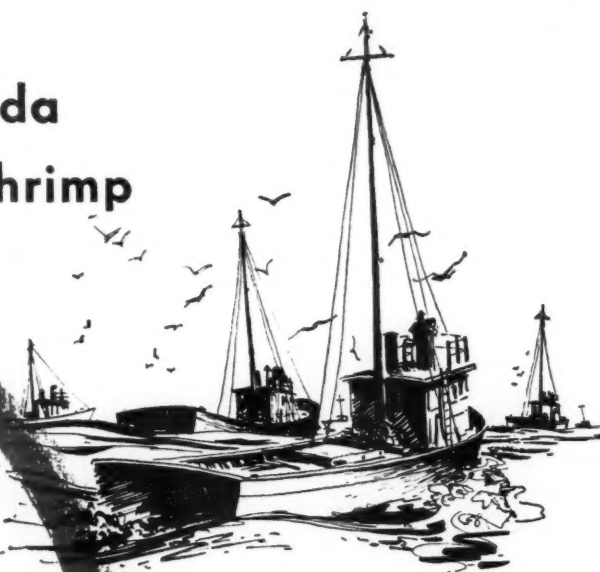
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Atlas Diesels power all six of these draggers—heavy-duty Model 38 Atlas Marine Engines which develop approximately 100 horsepower and which are noted for their low fuel consumption and maintenance costs.

Although they are just 58 feet long, and slightly over 16 feet at the beam, they made the long ocean voyage without any mechanical trouble or mishap despite the rough weather encountered. On arrival at their final destination they were ready for service.

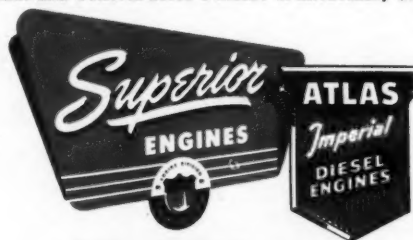
These boats will be subjected to rough treatment, and they have already demonstrated their ability to take it. The performance of their engines is proof that Atlas Marine Diesels can take it, too.

That extra stamina is built into all Superior and Atlas

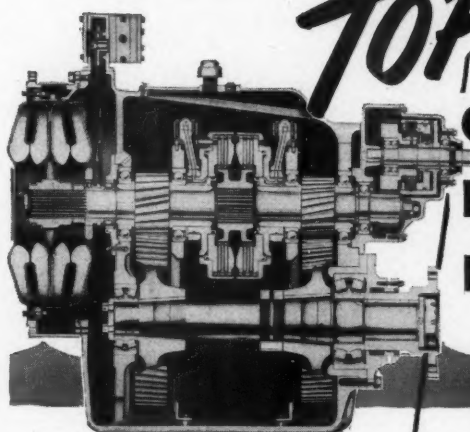
Diesels built for marine service. Construction and application details are contained in a series of new Atlas and Superior Marine Diesel Bulletins. Tell us your engine requirements so that we can furnish full information.

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Fishing boat skippers fast are learning that the gear of the year is the new Twin Disc Hydraulic Coupling Marine Gear with HYDRO-TROLL Drive.

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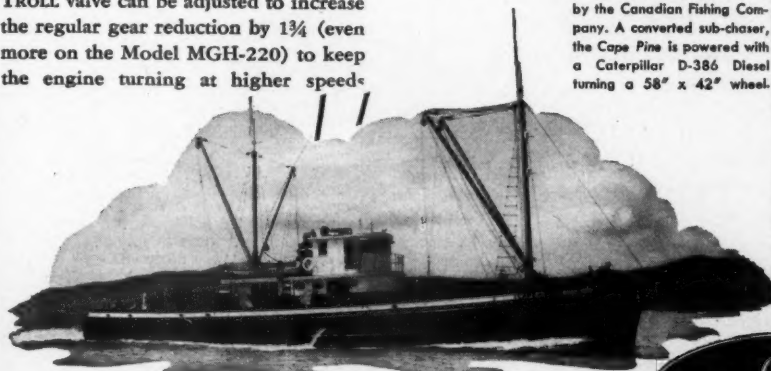
For low propeller rpm, the HYDRO-TROLL valve can be adjusted to increase the regular gear reduction by $1\frac{3}{4}$ (even more on the Model MGH-220) to keep the engine turning at higher speeds

where engine fouling is prevented . . . keep generators turning at effective speeds. The engine, turning at increased speed, is in a position to provide plenty of power for any other auxiliary equipment run off the propulsion engine.

If you haven't seen the new Twin Disc Hydraulic Coupling Marine Gears, write today for Bulletin No. M-161—and then see your dealer.

P. S. The hydraulic coupling dampens out engine pulsations and cushions shocks.

Features like these are the reason you find the Twin Disc Model MGHV-340 Marine Reverse and Reduction Gear on the Cape Pine, 112-foot halibut boat and packer owned by the Canadian Fishing Company. A converted sub-chaser, the Cape Pine is powered with a Caterpillar D-386 Diesel turning a 58" x 42" wheel.



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ATLANTIC FISHERMAN - JANUARY, 1952

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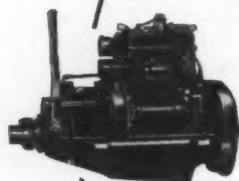


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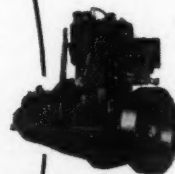
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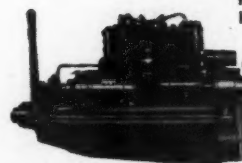
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Greater Use of Food Technology Will Aid Fishing Industry

The subject of quality is one that cannot be overemphasized in the fish business. Much has been said on this matter in the past, but it is important enough to be kept constantly in the forefront. The success of the fishing industry must be built on quality products, not only in winning new customers, but also in continuing to satisfy present ones.

Taking full advantage of the latest developments in food technology can go a long way toward insuring the marketing of quality fish. In a talk at the University of Washington some time ago, Dr. William F. Hampton, Seafoods Laboratory Manager of General Foods Corp., Boston, stated:

"It is the obligation of everyone in the industry to turn out the very best product that technology will permit. In technology we have a tool that is not being used to its full capacity. The fishing industry will not grow to its full stature unless this tool is used.

"Food technology is purely and simply the application of the principles and practices of the basic sciences of biology, physics and chemistry in the food industry.

"It is not sufficient to handle human food today as it was handled in years gone by. People expect more and they are paying for more. Products which result from older practices become less and less acceptable today, as technical improvements are made. Standards reach new heights and the job of meeting them and maintaining them becomes tougher.

"Much has been accomplished in the fishing industry but there is still room for improvement. There is still a lot of mishandling in retail stores, in transit and in warehouses. There is mishandling in plants, in boats and on the piers.

"If we are going to give the consumer a product which has real nutritional value we must be sure that it has been properly handled, properly prepared, and properly packed under sanitary conditions. This is especially important because fish is so highly perishable. Exposure to hazards—hazards which would bring on spoilage, detract from the palatability and acceptability and nutritional value of the product—is particularly great because of the methods which must be used in order to harvest the fish from the sea.

"It is our job to see that our products reach the consumer in the best possible condition—from the point of view of attractiveness, of appearance, of palatability, of flavor, and of nutritive value. The health of our business depends on it. Beyond the business angle you have a responsibility to see that the consumer gets the best product that technology is capable of giving her for her money. This responsibility is directly related to the health and welfare of the people who eat your products.

"The food industry needs technology for another important reason. When you talk about improvements in existing operations you should first of all think of improving the quality, secondly of improving the cost—driving the cost down without affecting the quality—and then you think of sanitation, working conditions and so on. The primary objectives are quality and price. Technology can help achieve both high quality and low price.

"Technology aims to make practical operations as efficient and economical as possible. You can start a program, for example, of process improvement, which will have as its aim not only the improvement of the quality of your product but also of reducing its cost. Technology strives to provide the best quality in the most efficient manner at the best price."

The fishing industry already has done much to improve the quality of its products, through better handling and processing techniques. It is becoming more aggressive regarding the application of food technology, and is more fully realizing the value of a scientific approach in obtaining increased acceptance for its products.

ATLANTIC FISHERMAN

REGISTERED U. S. PATENT OFFICE

The Magazine for Fish and Shellfish Producers
On Atlantic Coast, Gulf of Mexico, Great Lakes

VOL. XXXII

JANUARY 1952

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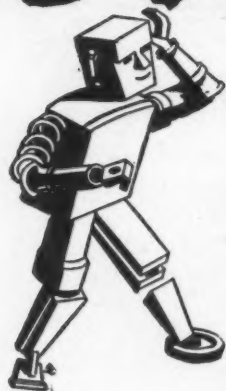
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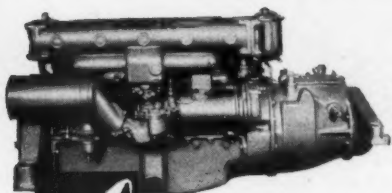
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For trouble-free Fishing in 1952...

choose from **5** power-packed

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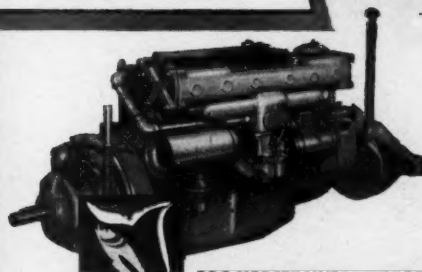
GASOLINE MARINE ENGINE MODELS

NORDBERG has now expanded its well-known Gasoline Marine Engine line to cover an even greater range of marine power requirements ... and now offers a choice of FIVE different models.

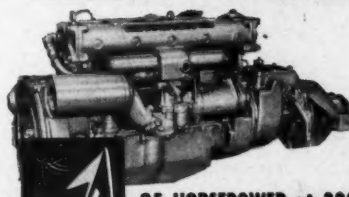
In every one of these five rugged, dependable engine models you will find a long list of exclusive engineering and construction features that provide maximum fuel economy, minimum upkeep, and years of trouble-free service in the toughest kind of fishing operations.

Follow the example of fishermen from coast to coast ... switch to Nordberg Gasoline Marine Engine power for new hulls or for repowering your present boat. Mail the coupon today for full details.

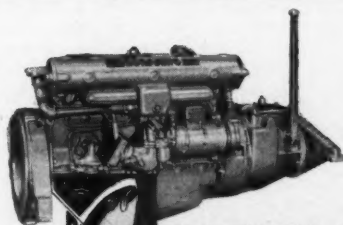
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* All models also available with hydraulically-controlled reverse and reduction gears at the same price as manually-operated types, in comparable ratios.

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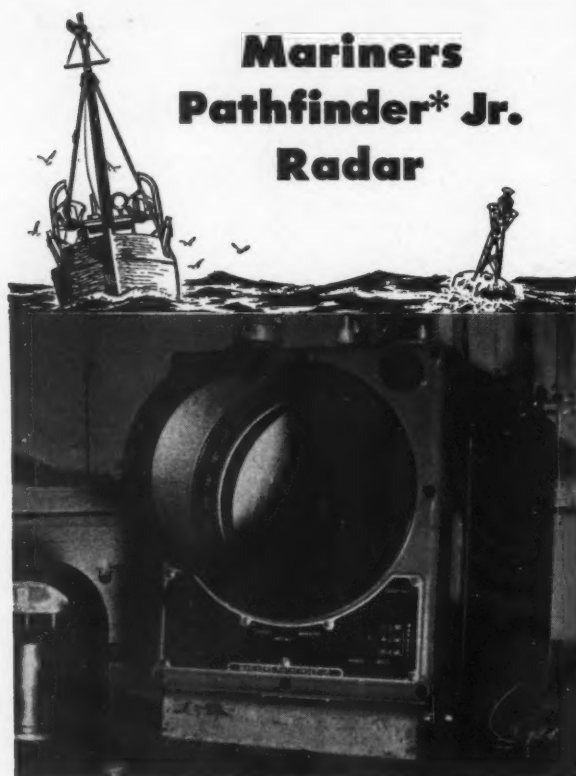
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Sounding-Lead

Estimated 1951 catch of seafood products in United States and Alaska showed moderate decline in volume compared to previous year, but value of catch remained about the same, according to Fish & Wildlife Service. Approximately 4.4 billion lbs. of fishery products, estimated to have been valued at about \$365 million to the fishermen, were caught during 1951. This was about 500 million lbs. less than during previous year when catch amounted to 4.9 billion lbs.

The large decline in landings is due to decreased catches of California pilchard, Maine and Alaska herring, tuna, and Pacific and jack mackerel. Landings of tuna were very light during last part of 1951 as fishing fleet was tied up most of that time because of lack of markets. Industry reports that considerable portion of tuna market has been taken over by imported fish.

The only major fishery registering a large increase was salmon. Catches of this fish increased nearly 200 million lbs.—due to a good run of pink salmon in southeastern Alaska and on Puget Sound. The other species of salmon were generally somewhat less plentiful than in 1950. Shrimp production is expected to set a new record of over 200 million lbs. during 1951. The previous high for this crustacean was 192 million lbs. in 1945. Menhaden landings may be slightly larger than the record year, 1948, when they totalled 1,081,000,000 lbs.

The 1951 pack of canned fish is estimated at 790 million lbs. compared with 1950 pack of 965 million lbs. Major declines were in Maine and California sardines, tuna, and mackerel.

Fairly firm markets for edible fishery products have been predicted for the first quarter of 1952, but those for most by-products will be unsettled, according to a report released by the Fish & Wildlife Service. Catches of fish and shellfish, the report predicts, will reach their low point for the year during this quarter, but will increase toward the end of March. Cold-storage stocks of fishery products, which are now unusually large, will diminish rapidly during the quarter. The decline in holdings is expected to be somewhat later than usual in reaching full proportions this year because Lent is about three weeks later than in 1951.

A strong market is forecast for canned salmon and sardines, fresh and frozen mackerel, croakers, and bluefish. The market is expected to be active, or fairly active, for shad. Firm markets or steady markets are forecast for such important products as haddock, cod, halibut, sea trout, swordfish, lobsters, oysters, whitefish and lake trout.

The market for fish meal is also seen as steady for the period. The report cites the prospect of unsettled markets for butterfish, ocean perch (rosefish), whiting, chubs, salt herring, fish oils, and fish-liver oils. A dull market is indicated for carp.

Lake herring ceiling prices were increased effective December 26. The regulation establishes higher ceilings on salt flat lake herring packed in Minnesota, Wisconsin and Michigan from Lake Superior herring. Prices are "F.O.B. vehicle at that vehicle's loading point nearest your packing plant."

New ceiling prices for whole fish are as follows: 100-pound keg, \$16.40; 50-pound keg, \$9.30; 25-pound keg, \$4.65; 10-pound keg, \$2.40; 8-pound keg, \$2.05; 6-pound keg, \$1.65; and 3-pound glass containers, \$3.60 per case of 4 containers. The price for 3-pound glass containers of fillets is \$4.60 per case of 4 containers.

Mexican search for shrimp will be undertaken because of scarcity of the shellfish on west coast of that country so far this season. Shrimp interests in Mazatlan have organized expedition of four boats for deep-water shrimp explorations. Expedition will be headed by Chief

of U. S. Fishery Mission to Mexico, who will be assisted by biologists from Fishery Institute of Pacific and of the Directorate General of Fisheries and Allied Industries.

The Mexican shrimp season began on October 1 and through mid-November catches were quite poor—only 60 percent of amount caught during same period last year.

Belgian Congo is good market for United States canned "sardines" and herring, according to Fish & Wildlife Service, provided products are competitive in price. There are no tariff, exchange, or treaty barriers to importation of canned fish in the Belgian Congo.

Canada obtained 40 percent of the Belgian Congo market for canned sardines in 1950, and 41 percent in first four months of 1951. Canadian exports to this market during first quarter of 1951 were larger than in corresponding period a year earlier, though shipments from United States climbed even more rapidly. Total Belgian Congo imports in 1949 amounted to 652 metric tons; in 1950 to 1,325 metric tons; and during first four months of 1951 to 772 metric tons.

Canned fish consumption in Belgian Congo is increasing rapidly, and colonial administration is making plans to raise domestic production of this commodity over a long period.

A large-scale mothership-type fishing operation is planned along the East Coast of South America outside territorial limits. A well-known captain and shipowner, who previously has managed important enterprises in Europe, now directs this enterprise and company from his offices in Montevideo, Uruguay.

Catches will be delivered to one or more motherships which then will clean, fillet, and freeze the fish, and process the trash fish and waste into by-products. With its own transport vessels, the firm plans to ship the products to different markets, especially fish fillets to United States and fish meal to certain European countries. Preparatory work to start this fishing enterprise is expected to last about one year.

Norwegian frozen fish exports to the United States increased about 130 percent during first eight months of 1951. Groundfish exports, chiefly haddock and cod, were boosted from 1.3 million to 2.6 million lbs. during this period. Norway also has found wide acceptance for fillets of ocean catfish, a new item introduced in this country. Opportunities for ocean catfish exports to the U. S. are limited only by the supply, according to the Norwegian Information Service. A good market also is envisioned for ocean perch.

Another product which Norwegian exporters believe could be pushed more vigorously in the U. S. market is herring tidbits, widely used for cocktail snacks. U. S. demand for Norwegian sardines is rather sluggish at present.

Revised import quota plan, based on poundage of fresh and frozen groundfish fillets imported last year, was laid before U. S. Tariff Commission early in January by O. R. Strackbein, chairman National Labor-Management Council on Foreign Trade Policy, who acted for the New England fishing industry.

New England industry originally had recommended quota related percentage-wise to actual U. S. consumption. Under this plan, share of market set aside for imports would have been determined by calculating proportion of U. S. consumption supplied by imports over preceding three to five years.

After further study, industry decided to suggest that imports during first year of proposed quota be tentatively set at a poundage equal to total imports of 1951. Instead of a three or five-year average of imports, the 1951 imports—said to be the highest on record—would serve as "point of departure," Strackbein said, "and would set the percentage of the domestic market that could be supplied by imports in the future."

Strackbein gave this example: Assuming 1951 imports at a volume of 80,000,000 lbs. and actual domestic con-

(Continued on page 53)



"So Well Pleased"
Now the FLEET
IS EQUIPPED!



It takes a man who "builds his own" to know his boat's equipment—including her batteries! Marko Skrmetta, of Biloxi, Miss., is a man to know. He owns and operates three boats: the famous Biloxi sightseeing boat GULF CLIPPER, the 56 ft. shrimp trawler MARK ROBERTS, and the new 60 ft. shrimp trawler TONI DIANE—all Surrette-equipped.

Pictured here, 'Toni Diane', her proud owner, and 'Toni Diane's' Surrette installation. Let Mr. Skrmetta tell you why he selects Surrettes: "Some time ago Kennedy Marine Engine Co., Biloxi, installed a set of Surrette Batteries in my shrimp trawler 'Mark Roberts'. I was so well pleased with the service from my first set of Surrettes that I requested them for my new trawler, 'Toni Diane', which is equipped with two model 12 HHG-21 batteries for engine starting, lights and radio equipment."

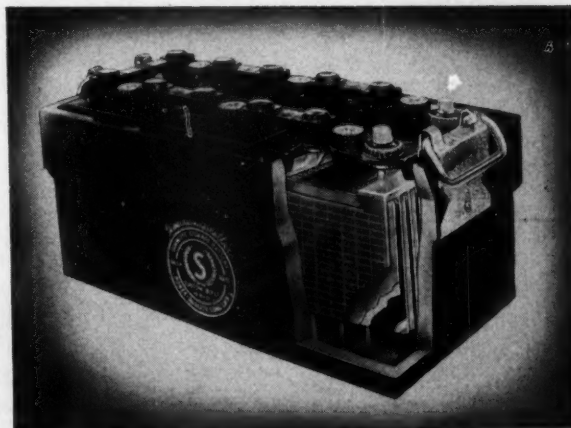
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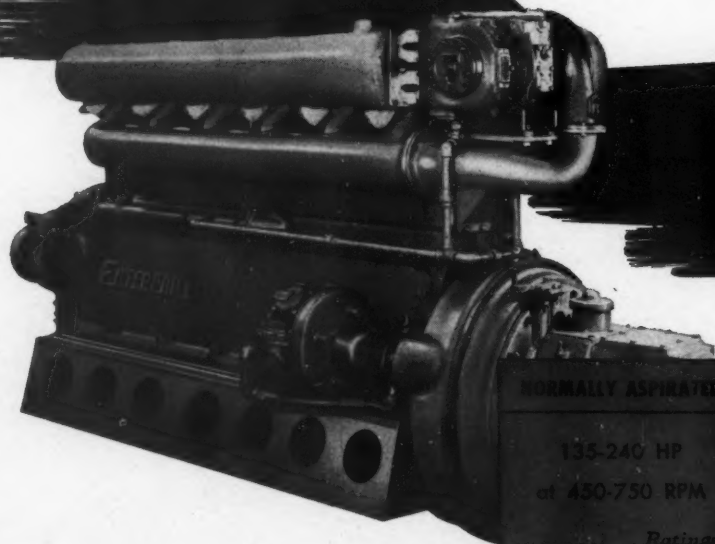
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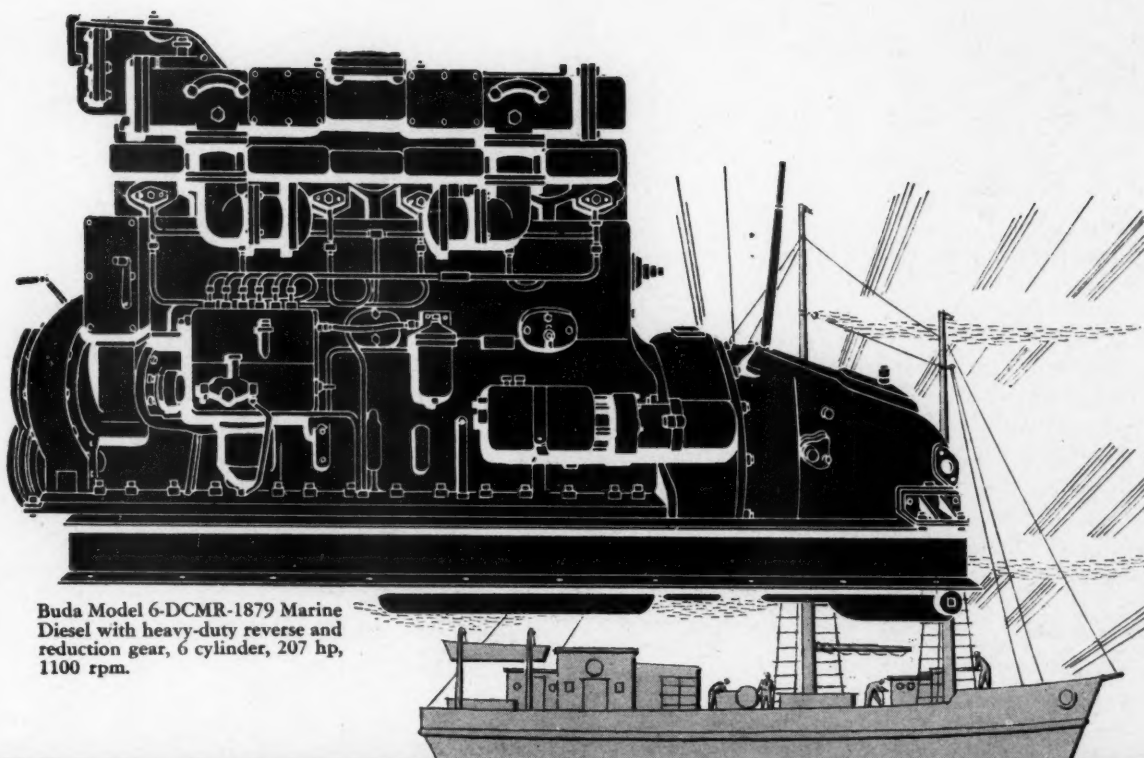
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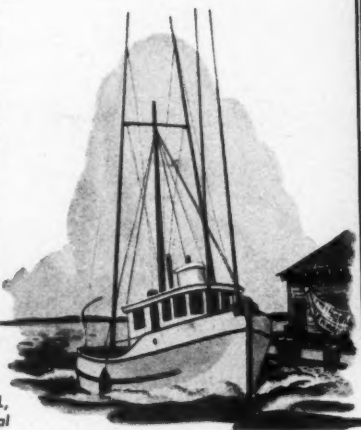
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MOODUS NET & TWINE INC.
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Be sure to insist on **NYLOCK Nylon Netting**... the only netting specially treated (patent pending) to **LOCK** the knots together to prevent slippage.

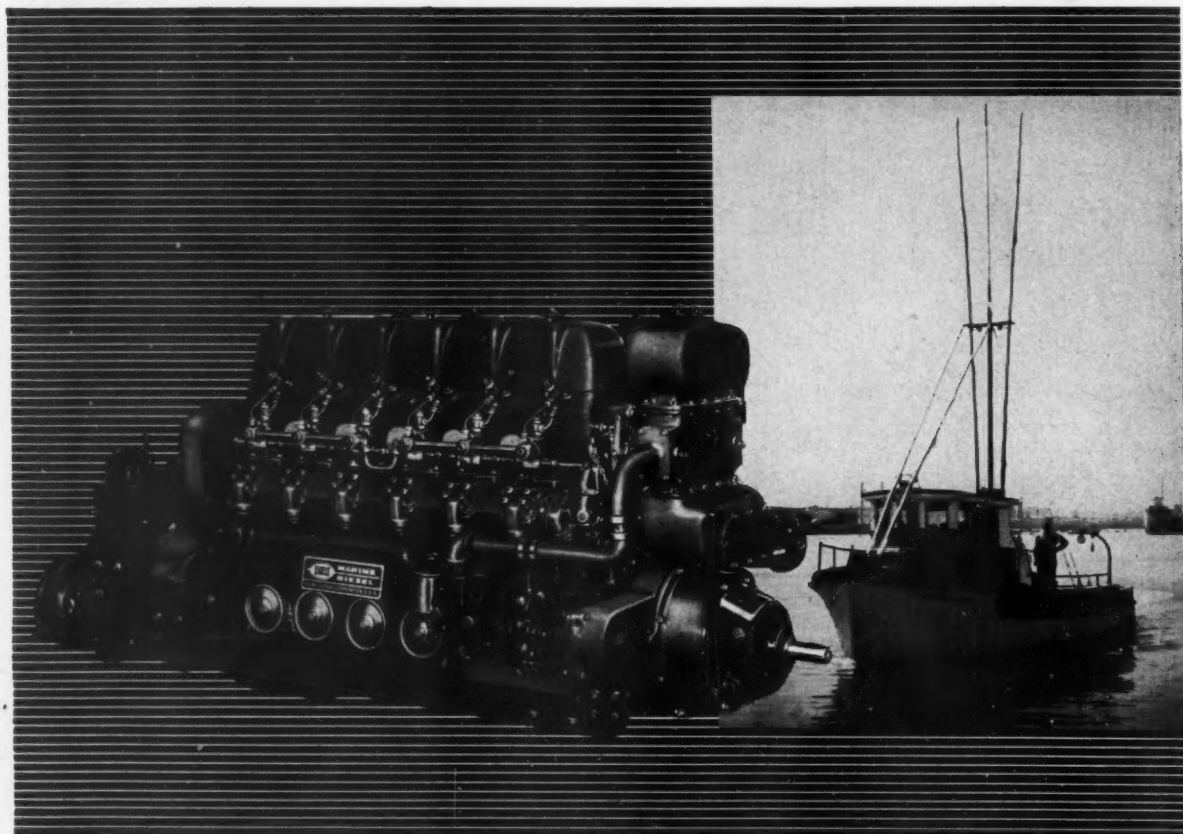
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RADIOMARINE® brings fishermen a new 2-way Radiotelephone *plus* Standard Broadcast Radio

STEPS UP EFFICIENCY
OF FISHING CRAFT
QUICKLY PAYS
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at a popular price!



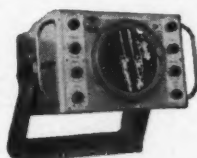
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RADIO DIRECTION FINDER
plus Standard Broadcast Radio

Makes navigation easier and safer, regardless of visibility or weather. In addition you and the crew can listen to radio programs, latest news, weather and market reports. Mounts on table or shelf using an inside or outside loop. Weight 14 lbs. Operates from 6, 12, 32 or 115 volts power supply.



Now, owners of the smaller fishing craft can afford a Radiomarine Radiotelephone aboard their boats. Tenders can be equipped to keep in radio-telephone communication with their mother ship. This new popular-priced Radiomarine unit saves valuable time and operating

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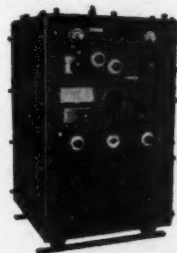
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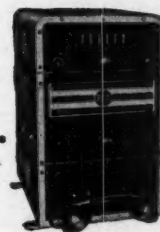
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75 watts. 10 crystal-controlled channels. Operates from 32 or 110 volts d-c or 115 volts a-c power supply.



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to assure exceptionally fine performance
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For Pleasure Boats
and Work Boats

20 to 200 HP.
Gasoline & Diesel



SPECIFICATIONS

Model	HP.	R.P.M.	Cyl.	Displ.	Weight
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The LH Models

LH-4	45	2800	4	133	440
LH-Master	70	2500	4	214	795
LH-6	64	2200	6	282	876
LH-Atom	90	3000	6	282	876
LH-Deluxe	120	3000	6	320	916
LH-Super	132	3200	6	339	936

The MYSTIC Models

Mystic 125	130	1800	6	585	1700
Mystic 175	175	1535	6	1013	2510

The ENGINEERS' Models

Engineers' 60	60	875	4	665	2100
Engineers' 75	75	915	4	792	2290
Engineers' 115	118	1000	6	1188	2950

The STANDARD Models

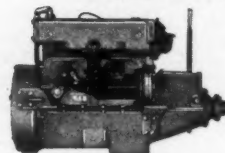
Standard 30	30	660	3	463	1450
Standard 40	45	710	4	618	1750

The DIESEL Models

D-50	50	800	4	665	3000
D-60	60	900	4	665	3000
D-80	80	800	6	998	4200
D-90	90	900	6	998	4200
D-100	100	1000	6	998	4100
DH-200	187	1600	6	935	5100

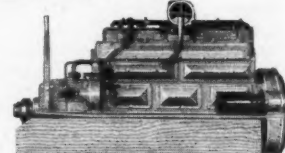
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catalog and any other information you'd like.



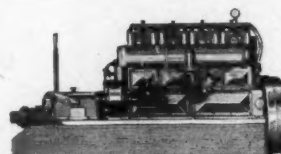
The LH-MASTER

Newest of the light-weight, low-cost
LH Models. Four cylinders deliver a
dependable 70 HP. at 2500 R.P.M.
Only 38 1/4" long over-all. Ideal for
both pleasure boats and work boats.
Other LH Models from 45 to 132 HP.



The MYSTIC 125

A medium speed, 6-cylinder engine
noted for saving dollars on main-
tenance, lack of vibration and abili-
ty to withstand hard use long after
other engines would have been worn
out. Delivers 130 HP. at 1800 R.P.M.



The ENGINEERS and STANDARD models

Medium and slow-speed engines for
heavy duty. 30 to 118 HP. Built
solidly in every part for exceptional
ruggedness and long life. Proved
and improved through years of use,
they are thoroughly dependable.



The D-100 DIESEL

An up-to-the-minute design, built to
operate very economically day in
and day out for years. Delivers 100
HP. at 1000 R.P.M. Many extra fea-
tures as standard equipment. Other
Diesel models from 50 to 187 HP.

THE *Lathrop* ENGINE CO.
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SINCE 1897 MANUFACTURERS OF RELIABLE MARINE ENGINES

An Analysis of Fishing Boat Design

By Jan-Olof Traung, FAO Fisheries Division*

THE fishing boat is generally the most important piece of equipment in the fishing industry. Boats are necessary to harvest the waters, and the financial success of the fisheries industry often depends on their being designed to perform as economically as possible. If they are wrongly planned, great difficulty and expense are involved in rebuilding them. Mistakes in shape are practically impossible to correct.

Different fishing methods, locations, availability of material, and developments have evolved fishing boats of entirely different types and sizes. It would be futile to look for the "world's best fishing boat": boats can be good or bad for a specific place or purpose but never good for all localities and all conditions. Nevertheless, boats can often be greatly improved by the incorporation of ideas from fishing craft of other countries. The development of design is an ever-continuing process.

Fishing boats, like yachts and tugboats, are really ships, hence they are not exempt from the rules of naval architecture. Though they are of many different types and arrangements, they all have many aspects in common. They must be seaworthy, seakindly, safe, and capable of attaining good speed. The price, and the operating and maintenance expenses, must be as low as possible. These qualities, to a considerable extent, are connected with the shape of the hull. Hence, the results obtained with one type may be useful in planning other types.

It is easy to build a boat which floats and which can make relatively good speed. Such a boat can be built without much experience, engineering knowledge, or planning; but to build boats which will operate economically requires study, hard work, and an open mind.

Boats of different sizes and types have different relative proportions. If a good design has been developed for a boat it often happens that such a design is lengthened simply by putting some more frames amidships. This is often undesirable, for it is not at all certain that the original good qualities will be retained after the change. The boat is likely to be too narrow, and a parallel middle body is not suitable for fishing boats.

On the other hand, if the lines are scaled up proportionally, it will perhaps result in a boat which is too beamy. Similarly, a boat of a well-balanced and good design may be offset by the introduction of a different type engine, heavier scantlings or auxiliaries, bigger deck-house, etc. Any such alterations usually require reconsideration of the hull shape, a factor all too often forgotten.

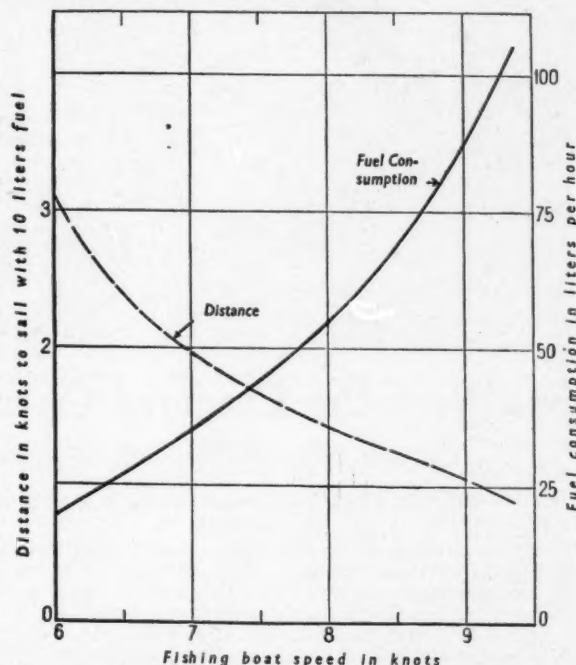
One of the most important requirements in boat design is that the weight of the boat should correspond to the designed displacement or calculated weight. Another is that the boat should float parallel to the designed waterline. If the actual weight of the boat is lower than calculated, the mistake can be corrected by adding ballast, but this means that a heavier body than necessary has to be plowed through the water, which adds to the running cost.

A more common and worse mistake occurs when fishing boats weight more than has been calculated; this often means that they cannot carry the expected load. Determination of the correct hull weight requires computation of the weight and center of gravity of every single part of the boat.

Seaworthiness, Seakindliness, and Stability

Seaworthiness means mainly that the boat has sufficient stability to weather a storm, that it has strong construction, dependable machinery, and healthy crew quarters.

Seakindliness means agreeable motions in different kinds of seaways, which permit fishing and higher speed



Fuel consumption and distance curves developed from trials of Canadian dragger "Halfish", carried out last year by the Fisheries Loan Board of Nova Scotia, in cooperation with the FAO Fisheries Division.

in bad weather, with as little strain as possible on the crew and on the structural members of the boat.

It is clear that fishing boats must be as seaworthy and as seakindly as possible. However, a vessel can be seaworthy and still pitch and buck so that only a cowboy can stay aboard her. This necessitates study of the question of stability.

Stability is the capacity of a ship to return to the original position when inclined away from it. High stability is obtained by a low center of gravity, e.g. much ballast in the bottom, low and light-weight superstructures, etc. and a broad beam. Low stability is due to a high center of gravity and a narrow beam. The degree of stability determines the boat's period of roll; high stability gives a short period of roll, low stability a long period.

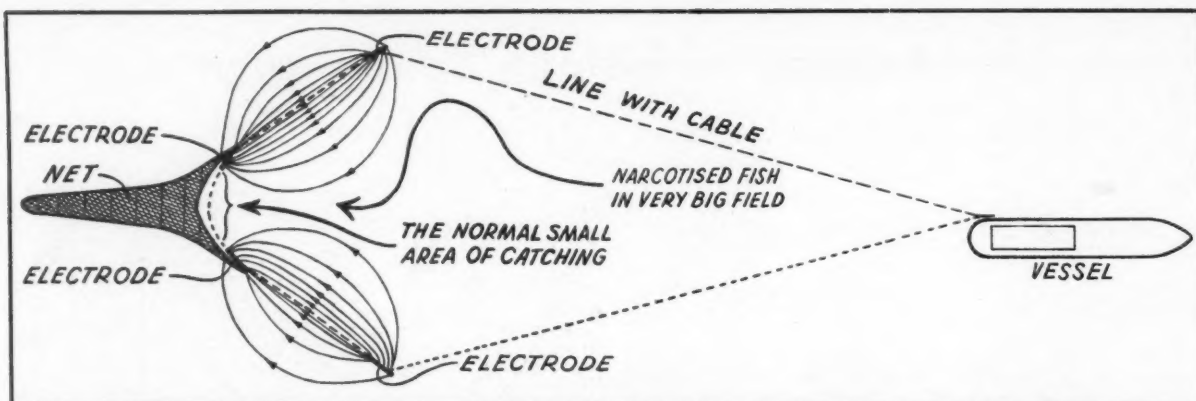
The period of roll is about the same for all angles of roll and all weather conditions. The period of roll can be checked in calm water at the wharf, for the boat will have about the same period of roll there as at sea. A rapidly rolling boat is "unsteady", "unstable", and uncomfortable for the crew. A slowly rolling boat makes bigger amplitudes but the angular speed is likely to be less and the boat is steadier. Thus, paradoxically, the boat with less stability is more agreeable and seakindlier.

If the period of roll and the period of the waves are about the same, the result will be synchronized rolling, resulting in rolls of wide amplitude. Therefore, care should be taken to place a limit of the period of roll of the boat. If, for example, a boat has a stability which gives it a rolling period of 6 seconds, synchronism occurs in waves of about 6 seconds period. In open sea this may correspond to 12 ft. high waves. The stability may well be sufficient to meet synchronism under such conditions.

If the boat has a rolling period of 8 seconds the synchronism occurs at 24 knots wind velocity and 18 ft. high waves. In this case, the boat's stability is less than in the former case and may be too little to meet the synchronism

(Continued on page 49)

* First installment of material abstracted from Fisheries Bulletin of Food and Agriculture Organization of the United Nations.



Sketch showing vessel using the electro-fishing method. Although normally the trawl has only a comparatively small opening, a very big electrical catching-field is created under the new method, through the application of electrodes on special "catching-arms".

Method for Electric Catching of Salt-Water Fish

German Scientists Develop Apparatus for Electro-Narcosis of Ocean Fish; Ex-Mine Sweeper to Commence Operations with This Equipment

THE attention of the entire world will be concentrated on the converted German mine sweeper R.96 when she commences electro-fishing in salt water this year. Success of electro-fishing in lakes and water-courses prompted the latest development in this field.

The freshwater method has been known for a long time, and fine results have been achieved by it. But the costly and impractical apparatus hitherto applied have now been succeeded by small, inexpensive ones of German invention. Such apparatus are no bigger than a small suitcase and so reasonable in price that almost anyone can afford them. What is epoch-making is that the apparatus produce "current impulses". The so-called Leduc currents—which are especially adaptable to the physiological conditions of fishes—are applied for this.

The leading capacity of salt water is 1000 times that of fresh water, and is therefore obviously much larger than that of fish. For this reason it was believed in many quarters that it was out of the question to paralyze salt-water fish. But thanks to the impulse-system and experiments with varying tensions scientists at long last have arrived at the conclusion that fish of the ocean may be caught by means of electro-narcosis. The inventors of the new method are Dr. Conradin Kreutzer (physicist), Herbert Peglow (engineer), and Dr. P. F. Meyer (ocean biologist), who have secured patents almost world-wide.

Mass Catching to Be Done

As to the forthcoming electrical mass-catching of fish by the expedition ship R.96, the idea is first to work electricity and the trawl at the same time. While normally the trawl has only a comparatively small opening, the idea has been conceived of developing the field considerably through creating current-poles on the lines, which has the effect of making an enormous bow-net entrance. The fish will be narcotized by impulse-electricity and will tumble helplessly into the net.

The scientists plan to conduct fishing in this manner in Icelandic waters, but it may be that the interest displayed in electro-fishing from the Swedish side will result in catching being done in the Skager Rack or in the Cattegat.

So far it is rather difficult to catch plaice by means of electricity. High-tension is necessary for this. So catching will at first be concentrated on codfish. Later on herring are to be caught electrically.

Selecting the Variety and Size

It is possible by varying impulse-numbers and tension to catch fish of specified size. Those not of the size desired

go "scot-free". The net can be drawn through the water at a height where rough sea-bottom does not interfere.

Furthermore, it is planned to select specific species of fish to be caught electrically. Picking the size of fish wanted already is a reality, but some time it should be possible to plan on narcotizing a certain species of fish one day, and another variety on the following day. This should be possible, because experiments show that the different species react differently to electricity. The rhythm of the heart, the nervous system, and movements differ with the individual species. If the electrical number of "pushes" and tension are adapted to the special rhythm of the fish in question, the problem would be solved. The skipper need only press different buttons and turn certain handles.

The next step in the development of electro-fishing will be to surround entire fish-schools with electrical barriers. This has been proved possible by the Russian scientist, Professor Chaernigin, among others. In such cases the current is not to narcotize the fishes, but to keep them locked in. The fish-school can be pressed together by "narrowing" the current, and in the end a tube can be lowered into the compact mass and the fishes pumped up. Or the swarm of fish may be moved to another and more desirable area by the means of shifting the electro-barrier.

If it is not desired to lock in the fish by "drawing an

(Continued on page 38)



The German ex-mine sweeper "R.96", which has been outfitted for electro-fishing. The two men are, from left to right: Engineer Herbert Peglow, who is one of the inventors; and an assistant.

Schooner "Lazyjack"

History of Tiny Craft,
Modeled After Old-Time
Sailing Fishermen, Traced
By Edmund Francis Moran

AMONG the finest fore-and-afters ever to float were the American sailing fishermen. Their magnificent appearance and fast passages never have been surpassed. The speedy schooners have gained immortality, with their saga now a legend on the glorious pages of sailing-ship history.

The Jubilee Year 1923 marked the finish of the "Engineless Era". The storied "Golden Age" of the American fishing schooner had ended. Subsequently, the "Flying Fishermen" Henry Ford, Columbia, Yankee, Elsie, Arthur D. Story and Mayflower passed into oblivion. Two decades later the once-great sailing fleet was threatened with extinction.

Capt. Fred G. Whittier of Ipswich, Mass. sought to commemorate the white-winged racers of the past. Accordingly, he designed a one-third-size replica of an old-time Gloucesterman. The keel of his dream ship was laid in 1946 at the Whittier and Low Shipyard in Ipswich.

Construction occupied sixteen months, and six thousand man-hours were spent on her. The sleek, clean-lined craft is a masterpiece of scientific hull design, combining the best features of two handsome fishing schooners. She boasts the clipper bow and hull profile of the *Gertrude*, a toothpick of 1900 vintage, and the *Elsie*'s mid-section and swelling quarters tapered to a typical Essex stern. The transom is heart-shaped.

The shapely vessel sports a concave entrance, slightly "tumble home" sides and short, graceful overhangs. Beneath the keel is a 500-pound shoe. Inside ballast totals 7,500 lbs. Double-sawn oak timbers, hard pine planking, and fir decking provide maximum strength, durability and longevity.

A "spike" bowsprit continues the majestic sweep of the sheer curve. On the stern is her name—*Lazyjack*—and hailing-port of Gloucester. December 12th, 1947, was her launching day. As the unrigged hull took the water, Capt. Whittier realized a lifelong ambition. The sturdy beauty is the only craft of her type afloat.

On completion the *Lazyjack* joined the ranks of the world's unique sailing vessels. Membership includes the midget, full-rigged ship *Joseph Conrad*; the ketch *Atlantis*, of oceanographic fame; the Arctic exploring schooner *Bowdoin*; and the one and only seven-masted schooner *Thomas W. Lawson*.

The Rigging

Rigged as a lofty "two topmaster", the tiny schooner *Lazyjack* is a model of neatness. She is a credit to Capt. Whittier, who designed, built and rigged her. There could be no more ideal setting for a fore-and-after than historic, tradition-shrouded Gloucester Harbor. And a finer schooner never wet her bobstay in the sea.

In 1948, Gloucester's champion, the racing fisherman *Gertrude L. Thebaud*, left her bones on the Venezuelan Coast. Thus the gallant *Lazyjack* finds herself the proud scion of a vanished fleet. She seems to know her own superiority and to revel in it. Raking lower masts and slender topmasts tower skyward. The little stager seems to proclaim that, here, sail still survives, despite the change of times.

Her principal measurements are as follows: L.O.A. 38'4", L.W.L. 30', beam 11', draft 5'9". She has auxiliary power. Happily, the small propeller does not impair her



The 38' "Lazyjack" of Gloucester, Mass. close-hauled in a spanking breeze. She is flying four lowers and main-gaff-tops'l. The schooner is owned by Capt. Fred Whittier.

superlative sailing qualities. The rig is a facsimile of a latter-day Gloucesterman's. The two lower masts are hollow. Cooney's Sail Loft in Gloucester fashioned the suit of eight sails.

The four lowers bear the following names: jib, jumbo, fores'l and mains'l. The light sails are called balloon, fore-gaff-tops'l, flying stays'l and main-gaff-tops'l. The head sails are triangular. The fores'l, mains'l and stays'l are quadrilateral. The jumbo is club-footed.

The gaff-tops'ls resemble enormous mule's ears, being, actually, quadrilateral. The short, curved side, between the tack and lowest mast hoop, is known as the "nuck". When close-hauled, the full sail plan presents the appearance of a vertical triangle of canvas, with its apex deeply notched. There are 800 square-feet of canvas in the four lowers. The total sail area is 1325 square-feet.

On the tumbling waters off the New England Coast the schooner cuts a foaming swath through the sea. The able "two sticker" displays the flawless beauty of a terraced cloud; the gracefulness of a swan; the stateliness of an old cathedral; and the quiet strength of a sperm whale.

Under a cloud of wind-filled canvas, the "flyer" heels sharply, carrying a bone in her teeth. A smother of foam swirls along the sloping deck, cascading over the lee quarter, into the seething maelstrom of the wake.

Reaching, "sailing across the wind", as fishermen say, is her best point of sailing. According to Capt. Whittier, "Her best speed, logged under canvas, was a shade over eight knots. In a brisk breeze, under four lowers and main-gaff-tops'l. Wind squarely abeam. Sea, quite smooth."

Has Cruised Caribbean

Throughout the past four years the "crack schooner" has cruised extensively. The classic seaways of the Spanish Main and the Islands of the Caribbean have been familiar territory. Berry Islands, Spanish Wells, Eleuthera, Great Inagua, Andros Island and Man-o'-War Keys were ports of call. In the Summer of 1951 she ranged the New England Coast. The vessel comfortably accommodates Capt. Whittier and three crew-members.

A recent visit to Rockport, Mass. turned back the pages of time. As I stood on the portico of the Sandy Bay Yacht Club, peering seaward, a handsome, two-masted schooner swept into port. Swinging four lowers and flying stays'l, she heeled sharply. Emerald-green topsides and a generous portion of copper-colored underbody reflected the slanting rays of a sinking sun. The Stars and Stripes proudly whipped from the main gaff-end.

Rounding to, the stranger dropped her sails and came smartly to anchor. As her stern swung across the setting sun I read her name—*Lazyjack*. She was the acme of perfection.

Maine Sardine Packers to Use New Type Fish Cooker

Two Rockland sardine plants and one in Belfast are to install the newest in packing machinery this Winter. Holmes Packing Corp. and Green Island Packing Co., both of Rockland, and Belfast Packing Co. of Belfast, will put the new type Belgian fish cookers into operation at the opening of the season next Fall.

The Belgian machine was given a test run at Holmes' plant the past season, a pilot model being shipped from Belgium and set up especially to acquaint packers in Maine with the machine. The machines have been in use in Norway and Morocco, but never before in the U. S.

Alterations are being made in the Rockland plants to make space for the machines which will arrive in April. Green Island Packing Co. is changing over its packing process entirely to the new machine, according to Edwin and Clayton Witham, officials of the firm.

The machine, an entirely new departure in sardine packing, is the product of the International Machinery Corp. of Belgium and is constructed and sold in this country



The Maine sardine industry's executive secretary, Richard E. Reed, shown conferring with some of the members of the Industry Committee who make the policies and approve plans for the cooperative sardine promotion effort which is a joint State-industry proposition. Cannery contributed more than \$375,000 to the development fund in 1951. From left to right are: Mr. Reed; vice chairman Frank Pike, Lubec; Calvin Stinson, Prospect Harbor; Chairman Carroll Peacock, Lubec; Lester Wass, Eastport; and Arnold Vogl, Eastport.

by the Food Machinery & Chemical Corp. of Hoopston, Ill.

The unit does away with the steam rooms and flakes of the conventional factory. Raw fish are cut and packed in the cans which in turn go to the machines. Once in the unit, the washing in brine, steam cooking and drying of the fish, neatly packed in their cans, is entirely automatic. The adding of oil, sealing the cans and the final cooking in the retorts is all that remains of the old system to complete the process. The machine has a capacity of 250 cans per minute, with the possibility that still more speed can be obtained.

In addition to installation of the new machine, both Rockland plants are adding new buildings to care for their product next year.

Kermit St. Peter, manager of the Holmes plant, said his firm would start this Winter on construction of a warehouse which will face on Ocean St. and have a railroad siding. The new building will be 120 ft. in length and 60 ft. wide, and will be of steel frame construction. The warehouse will have six storage bays leading directly to the railroad siding.

Feel Effects of New Lobster Length

Massachusetts' new, higher minimum length regulation on lobsters apparently is costing a few Maine fishermen some business, according to the State Sea and Shore Fisheries Commissioner.

"Some dealers apparently are buying only on the Massachusetts measure," Commissioner Robert L. Dow said. "Others are continuing to buy on the Maine measure. What they are doing with the small chickens we don't know. Presumably they have markets here or in New York."

Wholesale lobster prices dropped around Dec. 1—when the new Massachusetts minimum took effect—from 40 to 45¢ a pound to 30 to 35¢. But much of that drop was due to the opening of the Canadian lobster season.

Maine's minimum shell length is 3½". On Dec. 1, the Massachusetts minimum went from 3½ to 3 3/16". It applies not only to lobsters caught in Massachusetts waters but also to those imported from Maine or elsewhere. The Bay State is an important market for Maine lobsters.

Sardine Pack of Rockland Plants

The four plants in the Rockland coastal area packed a total of 11,235,600 lbs. of sardines during the season which closed November 30. Most of the packing activity came after Sept. 1.

Holmes Packing Corp., Green Island Packing Co. and North Lubec Manufacturing & Canning Co., all of Rockland, and the Port Clyde plant of Delca, contributed to the local pack.

The season, which opened April 15, looked like an economic disaster for cannery, fishermen and factory workers alike until early September. Fish had never been so scarce and Maine's 47 plants were idle most of the time. Old-timers freely predicted the shortest pack since the record bust of 527,000 cases in the depression year of 1932. But catches picked up in September and continued through October and November.

Generally the factory workers have received as much

or more pay than they did during the 1950 season. The top quality pack this year required slower work and therefore more hours on the payroll.

Vote to Join Fishermen's Union

Workers of the Birds Eye Fisheries Division of General Foods chose the Atlantic Fishermen's Union as their bargaining agency in an NLRB election in Rockland last month. The vote was 101 to 56 with 167 employees eligible to cast ballots. The Rockland local of the Fishermen's Union will come under a Boston charter.

Boatbuilding Activity at Friendship

The new 50-ft. gill netter *St. Joseph IV* was launched last month at the Lash Brothers Shipyard, Friendship, for Capt. John Zappia of Portland, whose wife christened the vessel. The fisherman will be powered by a D8800, Caterpillar 90 hp. Diesel, sold by Southworth Machine Co. Other equipment includes Submarine Signal Fathometer.

The Sidney Carter Boat Yard of Friendship is building a 26-ft. lobster boat for Ellsworth Simmons of Friendship.

Window Display Features Lobster Cove

A 6' window display of Lobster Cove will be exhibited in Radio City, New York, by Harold Simmons, Spruce Head lobsterman, for the Maine Development Commission. Everett Blethen of Owls Head designed the set and decorated it after it was built at the Woodcraft Shop in Rockland.

South Bristol Yard Launches "Pocahontas"

Bristol Yacht Building Co., South Bristol, launched the 91' x 20' x 11½' dragger *Pocahontas* on January 1 for Harvey Gamage, owner of the shipyard. Mrs. Maynard Lammi of Camden, wife of the skipper, was the sponsor. The vessel's power plant is a 400 hp. Caterpillar Diesel, and after being outfitted the dragger will operate out of Portland and Rockland.

Connecticut Fishermen Want Mystic River Dredged

Mystic marine enterprises, fishermen, boat owners, and the Mystic Chamber of Commerce have petitioned the Army and the Coast Guard for better navigational facilities in the Mystic River and its approaches. The petitioners want the Coast Guard to send an ice-breaker up the River "the four or five times a year experience has shown it to be necessary"; to step up the candlepower on the green light west of the channel entrance off Noank "which is now so dim it is often invisible at a short distance on dark and misty nights"; and to place a lighted bell buoy off the northeast corner of Gates Island which is off the mouth of the River.

The Army Engineers also have been asked to dredge to a depth of at least 10' at low water, shoals which have developed in the River. These are opposite the old hulks lying on the Noank shore and below the railroad bridge. The old eastern entrance channel leading to the Mystic River has shoaled to 4' at low water, and also needs attention, according to the petition.

Herring Running

Herring began hitting the nets of Stonington draggers about the first of the year. Julianio Brothers of New Haven and Maine opened shop at Longo's dock, and were reported ready to handle up to 100,000 lbs. a day at a price of 1½¢ per pound.

On Jan. 3, Capt. Joseph Maderia's *Connie M.* docked at the Point Judith reduction plant with a 30,000-pound herring catch, which was the largest that had been made up to that time. A 12,200-pound catch of small herring was shipped to New York as "sardines" during the early days of the run.

Butterfish and Scup

A late season run of butterfish resulted in 43,500 lbs. of this fish being landed at the Bindloss dock at Stonington on December 1. Scup landings for the day, the third in a week when the catch went over the 35-ton mark, were 16,200 lbs. Stonington Fisheries quoted butterfish at 8¢, large scup at 15¢, and small scup at 7¢.

Scallop Season Extended

A Dec. 15 closing date for the Connecticut scallop season in Little Narragansett Bay was lifted last month after Stonington scallopers protested to the Town Board of Selectmen. Capts. John Maderia and Manuel DeCastro led a delegation of scallopers in two meetings with the Selectmen. They pointed out that the Rhode Island half of the bay remained open and that the set in the bay would die before next September's opening date.

A closing date of January 1 for scalloping in both upper and lower harbors at Stonington was agreeable to the fishermen and was not protested.

New Fish Dock at Mystic

A new fish dock opened during December at Mystic, with Capt. John George, former owner of the dragger *Mildred & Myra*, at the helm. The concern is named the Mystic Marine & Commercial Fish Co.

Capt. George has several boats of the Noank and Stonington fleets plying out of his new pier, including Capt. Aldo Bacchiocchi's *Baby 2nd* and Capt. Remy Fauquet's converted Coast Guard boat *Stormy Weather II*.

Barrels and boxes, ice, gas, oil and coal, are available on the newly-built dock which extends more than 100 yards along the riverside. The river bottom has been dredged to a mean low water depth of 12'. Dynamite was used to clear out the rotted hulks that previously lay in the inlet where a finger pier has been built.

Thomas C. Thorsen

The body of Thomas C. Thorsen, 67, who had been a crewman on the dory trawler *Blackhawk* of Mystic and the *Conquest* of Noank, was found in Fishers Island Sound off the mouth of the Mystic River Dec. 4. He had been missing for about three weeks.



An Alabama snagline outfit with line ready to go overboard.

Snagline Method Used to Catch Spoonbills on Unbaited Hooks

Snagline fishing, which has been in operation in the Southern States for the past 25 years, is practically unknown except to a few commercial fishermen. As high as 10,000 unbaited hooks have been used by one operator. The snagline method was said to have been introduced in Alabama 25 years ago by Walker D. Wallace of Fairhope.

Snagline fishing is patterned somewhat after the Russian method, but the gear is not quite as heavy as that used in the Russian sturgeon fisheries. This is because commercial fishermen in this country employ snaglines to catch a much lighter fish—the spoonbill. The tackle first originated on Reelfoot Lake, in West Tennessee, in 1913.

The lines are built and fished in 500-hook sections. Hooks are staged with size 16 to size 20 soft lay cotton twine, 20" in length. The main line runs in size from 48 to 72 thread medium lay. Hooks are 7/0 Limerick or Kirby spear point. In inland lakes, the 16 - 48 size twine combination is most popular. In rivers where the current or tides run strong, the heavier twine is advisable.

The secret of catching fish on this tackle without bait, lies in the method of staging the hooks. The soft lay staging is doubled without tying the loose ends. The doubled end is then inserted through the eye from the point side, then given one twist and passed back over the bow of the hook and then drawn tight. Most fish strike the staging while swimming, and the hook is pulled into them. Regardless of which direction the hook is pointed, the twist in the staging will cause the hook to turn down, catching the fish. Hooks are spaced on the main line 10" apart.

The hooks are reefed on No. 3 tubs and run out, or a metal rod is now used by most fishermen. An old iron bed rail is ideal for reefing if one end is knocked off so as to allow hooks to slip off.



A haul of spoonbills which were caught on snaglines.



Being briefed by Capt. Rudolph B. Matland, left, and John G. Murley, center, president and vice-president, respectively, of the New Bedford, Mass. Seafood Producers Association, Inc., is John F. Linehan, right, newly appointed general business manager.

New Bedford Seeks Dismissal Of "Monopoly" Indictments

New Bedford Seafood Producers Assoc., Inc., boat owners group, and the Atlantic Fishermen's Union, on December 27 filed motion in Federal Court in Boston for dismissal of indictments against them charging monopolistic practices and conspiracy in the New Bedford fishing industry.

The Association, represented by Attorney Philip Barnet, requested a bill of particulars be granted the group. He asked also that the organization be allowed to inspect the books and papers owned by the group but now in possession of the Government. In motion for dismissal of the indictment, Attorney Barnet said there was no specific violation of the Sherman Act and no unlawful restraint or monopoly on the part of the defendant.

Attorney Henry Wise of Boston, representing the AFU and five top union officials from Boston and New Bedford, also asked for a bill of particulars and an inspection of the minutes of the Grand Jury which indicted the Union several months ago.

Seafood Workers Make New Contract Demands

New contract demands by the 400-member Seafood Workers Union, submitted to the New Bedford Fillet Dealers Assoc., have been called crippling to the New Bedford fishing industry by a local fillet and fish dealer.

The dealer said union demands, submitted by business agent Joseph V. Sylvia, would drive many of the local fillet concerns out of the city, and would be of help only to Canadian and other foreign countries. Present contract between the union and fillet dealers, Mr. Sylvia said, expires February 9.

"St. Anthony" Changes Hands

The 60' fishing dragger *St. Anthony* of New Bedford has been sold to Capt. Seraphine Codinha of Provincetown. The boat will retain its New Bedford registry and the name also will be retained for a time, although the skipper plans to change it later.

The *St. Anthony*, which was to start fishing out of Provincetown early in January, was built in 1944. She is of similar style to several other Provincetown boats, including the *Yankee*, *Victory II*, *Liberty II* and *Reneva*. Capt. Codinha was skipper of the dragger *Plymouth Belle* for two years prior to purchase of his own boat.

Norlantic Purchases Beaconside Plant

The property, equipment and other assets of Beaconside Boat Co. of Fairhaven have been purchased by Norlantic

Diesel, Inc. of New Bedford. It is planned to move all the equipment of the present Norlantic Diesel plant to the Beaconside plant, and the combined organization will do business at that site hereafter.

According to Jens Ulrichsen, general manager, Norlantic plans to greatly broaden its service activities in the marine power plant field, and also will offer facilities for doing repair and reconditioning work on the holds of small and medium-sized vessels. The larger area of the Beaconside plant also affords facilities for hauling and storing marine craft, and this field will be developed as rapidly as possible.

Cape Cod Has New Ocean Quahog Industry

Organization of a new year-round shellfishing industry at Falmouth that is currently employing 12 Cape Codders and which may easily double this force shortly, has been announced by Edwin B. Athearn of Woods Hole.

After three years of negotiations and planning, Mr. Athearn has leased two former New Bedford scallopers, the *Sea Going Wrangler* and the *White Cap*, and these craft are engaged in the commercial dredging of ocean quahogs in waters off the westerly shore of Nantucket and Tuckernuck Island.

Another scalloper, the *Monte Carlo*, owned by Mr. Athearn and currently fishing out of Portland, will be brought to Cape Cod soon to join the fleet.

A supply of ocean quahogs that is described by Mr. Athearn as unlimited, has been found by electronic devices in the waters between Gay Head and Block Island, R. I. These shellfish, however, are found in substantially deep water, and some new equipment probably will be needed to dig them from the ocean floor.

Firing Range Made Permanent

Establishment of the anti-aircraft artillery firing range off Wellfleet's Atlantic shore has been made permanent. Capt. Manuel Dutra, president of the Seafood Producers Assoc. in Provincetown, said the Army has made some concessions which appear to be the best the fishermen can get under the circumstances. But he still believes the firing has done something to chase the fish away from this area, which always has been good fishing ground.

Plan Wellfleet Reseeding Program

A program of conservation for the supply of Wellfleet scallops will go into effect as soon as possible. The plan calls for shellfishermen to get boatloads of seed which abound outside Jeremy Point and bring them inside for planting before Winter storms destroy them.

The State Division of Marine Fisheries has allotted \$100 for this work, and the town will match this sum.

To Rid Scallop Beds of "Coots"

Immediate steps to rid the scallop area in Provincetown Harbor of millions of "coots" which have been destroying the scallop beds will be taken by the Provincetown shellfish committee, aided by the Fish & Wildlife Service and State Conservation Dept.

Selectmen said they would authorize use of \$150 from the shellfish appropriation to aid in meeting the expense of the program. Shellfish committee members estimated that next year's scallop crop may be worth as much as \$100,000.

State Approves Wharf for Wellfleet

Wellfleet Selectmen were notified recently that the State has approved construction and provided its share of funds for the projected Town Wharf. The town already has set up its fund, amounting to \$20,000, which is to be matched by the State. The wharf would extend out 110 ft. into the water and, with the end forming an "L" shape, would provide a frontage of 180 ft.

Florida Fresh Water Fish Board To Hold Public Meeting

The Game and Fresh Water Fish Commission has announced that it will consider commercial fishing and seining problems at a public meeting in West Palm Beach February 4.

L. M. Morris of Monticello, Commission chairman, said the announcement was made in accordance with a promise to give Florida fishermen at least 30 days notice of any meeting on this highly controversial issue.

Included in the commercial fishing study will be a proposal to conduct a three-year experimental operation in two Lake County lakes (Eustis and Harris) and one in Polk County (Reedy) to determine the practicability of controlled fish management.

Closed Mullet Season

The 40-day State-wide closed season on mullet started at midnight on December 10. Fish dealers had until the 15th to sell supplies on hand.

Fishermen Have Narrow Escape

Three Venice commercial fishermen returned safely early in December after their 65-ft. vessel, the *Thresher*, narrowly escaped sinking in an accident about 40 miles out in the Gulf. Those aboard were Walter Dean, skipper of the fishing craft, his wife, and his mate Edwin Benedict.

The Deans were en route to port after a 10-day fishing trip when the craft became disabled. A passing freighter, the *Insko*, of Tampa, saw the *Thresher's* distress signals. She hove to and was endeavoring to pass close by the *Thresher's* stern when the rough seas tossed the freighter against the fishing boat and tore a hole in her side.

The *Thresher* began to take water badly, but the *Insko* seamen managed to patch the *Thresher's* gaping hole. Then other emergency repairs were made and the *Thresher* was able to move again under her own power.

Commercial Fishing Banned at Holmes Beach

Holmes Beach aldermen voted unanimously in a recent session to draw up an ordinance prohibiting commercial net fishing within 1,500 ft. of the municipality.

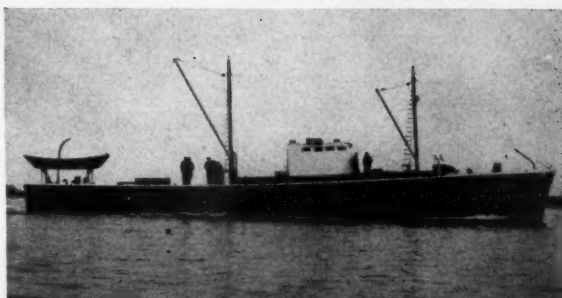
The ordinance will be patterned after the State law relating to Manatee County waters, and any violations would be in defiance of both State and local regulations.

Fishing Million Dollar Business in Miami

A cash value of more than \$1,000,000 is realized by the commercial fishing industry in Miami. Seafood shipped through Miami to northern markets amounts to between five and ten million pounds. There are 65 wholesale fish dealers.



The 42' "M. J. Athanasos", a former sponge boat now being operated by the Johns Pass Fish Co., Johns Pass, Fla., for catching snapper in the Gulf. The craft is powered with a 60 hp. Buda Diesel.



FREIGHTING OF LOBSTERS from Newfoundland to Montauk Point, N. Y. will be done by the 110' "Perry B", shown at top. She was converted from a subchaser by Webber's Cove Boat Yard Inc., East Blue Hill, Me., for Perry B. Duryea & Son, Inc. of Montauk. Below the boat are the vessel's two D13000 Caterpillar Diesels, furnished by H. O. Penn Machinery Co., New York City.

Long Island Firm Has New Lobster Freighter

Perry B. Duryea & Son, Inc., Montauk, has had a 110' subchaser converted for carrying lobsters from Newfoundland to Montauk Point. The work on the vessel, which has been named *Perry B*, was done at Webber's Cove Boat Yard Inc., East Blue Hill, Me. Her cargo capacity is in excess of 50,000 lbs. of lobsters.

The craft is powered with two D13000 Caterpillar Diesels, furnished by H. O. Penn Machinery Co., New York City. The engines turn 42 x 32 Columbian propellers through 2:1 Twin Disc reduction gears. A Jabsco bilge pump is driven from the forward end of the port main engine. The starboard main engine is equipped with a Twin Disc front power take-off which drives a hoist for handling cargo.

The vessel is painted throughout with International paints and is rigged with Plymouth cordage. She has a Shipmate coal-burning stove in the galley and a Werner coal-burning boiler in the engine room for supplying heat to it and the pilothouse through radiators. Navigation equipment includes Wilfrid White compass.

Shad Migration Study

Scientists of the Fish & Wildlife Service Laboratory, Piver's Island, North Carolina, have found that a number of the shad taken each Spring from the coastal waters of North Carolina actually are wanderers from the Hudson River and other northern streams. In 1950 the laboratory staff tagged a large number of shad on the spawning grounds of the Hudson River. Returned tags made possible the tracing of the route of travel first along the shores of Long Island and southern New England and continuing into the Gulf of Maine where these fish spend their Summers.

In the late Fall shad apparently begin moving southward, but are not taken by the fishery until the Spring



Capt. Claude Dupuy's 52' shrimp trawler "St. George" of Cameron, La. Her power plant is a D13000 Caterpillar Diesel which turns 42 x 32 Michigan propeller through 2:1 Twin Disc reduction gear. She is equipped with Linen Thread Co. Gold Medal netting, Stroudsburg hoist, Northhill anchor, Columbian rope, RCA radiotelephone, Bendix depth sounder and Roebling wire rope. The vessel is painted with Woolsey paint, and uses Esso fuel and lubricating oil.

Louisiana Shrimpers Protest Proposed Army Firing Range

Representatives of the Air Force and the shrimping industry of Morgan City met on December 20 to discuss the proposed Army jet firing range off the coast. The Air Force said they needed the area to teach their pilots to shoot.

Every type of industry and person was heard in defense of the shrimping industry and against the Air Force's proposed firing range area. Mert Young, a fisherman and head of a co-op group, suggested another spot and had maps drawn and ready to show the Air Force. Some present thought that the area now picked would be moved slightly after the meeting, but no one could predict when a final decision would be handed down.

Trawl Size Limits Asked for Vermilion Bay

Police Jurors have adopted a resolution requesting that the sizes of trawls in Vermilion Bay be limited to 30 feet. Albert Taylor, officer of the Vermilion Rod and Gun Club, declared that boats operating with 100 ft. trawls are depleting the fish and shrimp in Vermilion Bay. Taylor stated that boat operators from Terrebonne and St. Mary Parishes are coming into the bay with 100 ft. trawls and scooping up all the fish and shrimp in the bay.

of the year. Then almost simultaneously, the Hudson shad appear in the coastal waters of North Carolina, Chesapeake and Delaware Bays and adjacent areas.

The most important part of the study, however, lies in the fact that no tags were recovered from the spawning areas of any stream other than the Hudson River, verifying the previous assumption that shad return to their native stream to spawn although during their life they may wander a long way from the home stream.

New Poster Favorably Received

The Fishery Council's new 22" x 35" "Cook Right" poster in red, white and blue has received favorable comment from retailers and Council members. Dressed, filleted and steaked fish and shellfish are depicted. Inset cartoon pictures of father, mother and daughter comment on flavor, high protein and thriftiness. A cook book offer is also a part of the scheme.

Capt. Bert Raynor

Bert Raynor or "Captain Bert", as he was familiarly known in Greenport, died on December 11, his eightieth birthday. At the early age of 12, Capt. Raynor first started to follow the water. About 20 years ago, Capt. Raynor sold his boat and retired from the active life of a bayman.

Alabama Shellfish Yield Shows Increase

Landings of shrimp, oysters and hard crabs showed a substantial increase in the Mobile-Bayou LaBatre area of Alabama during the first 11 months of 1951. The shrimp catch totalled 20,600 bbls., or about 35% more than in the same months of the previous year.

Totalling 68,000 bbls., the oyster yield for the first eleven months of 1951 was 10,600 bbls. more than in the 11-month period of 1950. The hard crab catch was 833,000 lbs., or nearly double that of the previous year.

Although increases were registered in all of the shellfish divisions, the catch of salt-water fish dropped from 3,151,300 lbs. in 1950 to 2,696,400 lbs. in 1951. Freshwater fish production amounted to only 72,550 lbs., compared to 107,100 lbs. the previous year.

Miss. Seafood Catch Valued At Fourteen Million Dollars

The Mississippi Coast seafood industry has had an average season this year. Shrimp catches at certain periods were declared excellent, and menhaden landings were good. Marine products valued at about \$14,000,000 came from the Gulf waters during the year.

That \$14,000,000 breaks down into \$8,000,000 for canned and frozen shrimp, \$3,000,000 for menhaden and another \$3,000,000 for oysters, crab meat, flounder, king whiting, mullet, sea trout and modest quantities of a dozen other types of fish.

Prospects are that there will be good shrimping for some time to come, the only difficulty being variations and uncertainties of the market for these crustaceans. Mexican shrimpers, operating with lower costs and on much lower standards of living, have been shipping large brown shrimp into Northern markets in ever-increasing quantities.

Operating out of Mississippi coast towns, over 1400 boats worked both the inshore and outside waters in the Gulf, manned by 3000 fishermen. All belong to the Gulf Coast Shrimp and Oystermen's Assoc., and this year the fishermen received \$6,200,000 for their share of the shrimp and oyster yields.

Seafood Protected During Oil Survey

The task of surveying Mississippi's coastal waters for new oil reserves to meet steadily increasing demands poses the problem of protecting the seafood supply. After leasing the approximately 800,000 acres which comprise the Mississippi Sound and adjacent waters to the South from the State Mineral Lease Commission, engineers and technicians of the oil company concerned conferred with members of the Miss. Seafood Commission and worked



The 43' fishing boat "Little John", owned by A. Lombard of Biloxi, Miss. She is powered with a 48 hp. Caterpillar Diesel.

out protective measures to safeguard oyster beds, shrimp grounds and fish.

The safety precautions are tested and proven and follow to the letter "shooting" procedure prescribed by the Louisiana Conservation Commission, where extensive offshore exploration and drilling has been done. The only phase of the survey the Seafood Commission is concerned with is the "shooting" or detonation of small dynamite charges which send shock waves into the earth's interior. After shooting has been underway for two weeks the Seafood Commission's boat visits the operation and conducts tests to determine if the explosions damaged the water bottoms.

As an extra precaution, the oil company is following the deep channels as much as possible in the oyster areas and keeping the shot points off the main reefs. These shot points are carefully established by a survey boat to comply with all seafood safety measures.

Fishermen Rescued After Boats Sink

Four Biloxi fishermen spent a harrowing night on Chandeleur Island last month following the sinking of two shrimp boats.

Capt. Moze Herbert and Nickie Herbert of the *Warren Galle*, and Capt. Carey Galle and Cecil Galle of the *Clara Fountain*, were brought back to Gulfport by the Coast Guard cutter *Nike*. The men apparently were no worse for their experience during a hectic three-day period.

The *Clara Fountain* became disabled, and the *Warren Galle* came into Biloxi for spare parts and then returned to the scene. When the men were unable to get the disabled boat into operation, the *Warren Galle* proceeded to tow it to a shelter behind the Island. Several anchors and lines failed to hold the boats when a storm came up and the boats sank.

Virginia Group Urges Stricter Enforcement of Fisheries Laws

More stringent enforcement of commercial fishing and oystering regulations, together with a vigorous program to increase the State's oyster population, was recommended by the Virginia Advisory Legislative Council in a report to Governor Battle and the Virginia Legislature.

The report advocated State legislation, or Congressional action, if necessary, to keep trawlers beyond the three-mile limit and thus protect small fish.

Imposition of a severance tax on all oysters taken from public rocks was recommended to finance the replenishing of the State's oyster population. The rate would be 2¢ a bushel for the first two years, 3¢ for the next two, and 4¢ thereafter. To launch the program of planting of oyster shells, the Council proposed that the State Legislature appropriate \$150,000. It also was recommended that there should be no leasing of additional oyster bottoms in the James River.

The advisory group urged parallel legislation with Maryland to ban all haul seining from Dec. 15 to Feb. 15 annually, and recommended that no boats except properly licensed buy-boats be permitted to have more than 20 barrels of crabs at a time. The Council also urged that the fisheries laboratory devise ways to combat the screw borer, and that a shad hatchery be established on each important river in Tidewater Virginia, financed jointly by the State and Federal Governments.

York River Oyster Set Unsatisfactory

Data accumulated by Dr. Jay D. Andrews of the Virginia Fisheries Laboratory indicates that no commercial set of spat has occurred in the York River during the past six years. Counts of spat were taken from both natural cultch and sample bags of clean shells. Dr. Andrews reports that the shells in wire bags caught from one to fifty times as many spat as natural cultch in the York River.

Oyster drills killed all spat on test bags around the Laboratory dock during the Summer of 1950, except a few which died from other causes. Prolonged freshening of



Capt. J. B. Turner's 40' pound-netter "Margaret" at Mundy Point, Va. on the Potomac River. She fishes for shad and herring, and her power plant is a 40 hp. Palmer gasoline engine with Hyde propeller. Other equipment includes Linen Thread Co. Gold Medal nets, and the vessel is painted with International paint.

the water by heavy rains will kill the drills, which is what occurred in 1945. Since that time the drills have steadily increased in numbers and have moved upriver at least as far as Claybank.

Crab Dredging

A fleet of 10 Tangier crab dredgers returned to the Island the latter part of December from the hibernation grounds in the Lower Chesapeake, near Cape Charles, where the vessels had been dredging since the first of the month.

According to reports, they did fairly well, but were limited as to how many crabs they could sell. The cookeries at Cape Charles would take only 25 barrels from each boat. At \$2.00 a barrel, the dredgers were having a hard time making ends meet.

However, before December was half over, the dredger *Bessie L.*, with Capt. Holmer Pruitt as skipper, began serving as a run boat, delivering the crabs to other markets on the bay. Almost immediately hard crabs jumped from \$2.00 to \$4.00 a barrel, and the dredgers were able to sell all they could catch.

Radar Helps Rescue Four Fishermen

Radar and two raised metal buckets on a lifeboat were credited with playing a large part in the rescue of four Virginia fishermen whose trawler, the *Myrna Loy*, exploded and sank early in December about 30 miles southwest of Winter Quarter lightship.

Capt. W. M. Parks of Cape Charles, skipper of the trawler, and his three crew members, rowed their 14-ft. lifeboat till nightfall but were still 10 miles short of land when darkness and a heavy fog set in.

That's when the collier *Isaac T. Mann*, which is equipped with Raytheon Mariners Pathfinder radar, spotted the metal buckets on the lifeboat on its radar screen while doing a routine sweeping of the seas. As the collier came near the lifeboat, a flashlight was observed, and the four men were rescued.

Oyster Dredgers Doing Well

Oyster dredging in Tangier Sound has been both fair and good. Below the Virginia-Maryland line dredgers have been making from \$40.00 to \$60.00 to the man per week; but above the line, dredgers have been doubling this amount, making from \$80 to \$160 a week to the man. Late last month oysters were selling for a high price—from \$3.25 to \$4.00 a bushel.

Hampton Roads Area Landings

A gain of more than 600,000 lbs. over the previous month, but a drop of about a quarter of a million lbs. from December, 1950, was registered by the seafood catch in the Hampton Roads area during December, 1951. With the exception of 3,800 lbs. of striped bass and white perch taken from pound nets, the entire 1,687,000-pound catch was landed by draggers. Sea bass was the leading variety, with 638,000 lbs.; while scup, the top species in November, was a close runner-up, with 575,000 lbs.

Boat Show Exhibits of Interest to Fishermen

A FOCAL point of activity for the entire boating fraternity, the National Motor Boat Show staged its annual eight-day run at Grand Central Palace, New York City, from January 11-19. The four exhibition floors had over 200 displays of boats, engines, accessories and marine supplies. The Marine Historical Association of Mystic, Conn., in cooperation with the Seaman's Church Institute of New York, recreated a portion of the Mystic Museum, showing early sailing ship figure heads and navigating instruments. Sponsored by the National Association of Boat and Engine Manufacturers, the Show had numerous exhibits of interest to fishing boat owners, some of which are described below.

Columbian Bronze Has New Throttle Control

Columbian Bronze Corp. devoted considerable space to larger propellers for working vessels, and provided information on propeller problems.

A new adaptation of the Model 51 hydraulic throttle control was shown. The newcomer, Model 51L, features a worm type drive for the transmitter piston, providing self-locking operation at reduced control handle effort. All need for adjustable friction brakes is eliminated and therefore the control is applicable to the heaviest Diesel engine governor loads.



New Jabsco finger-tip control pump and clutch unit. At 2200 rpm., the pump will deliver 61.4 gpm. against a 10' head.

Jabsco Introduces New Pumps

Jabsco Pump Company announced a new line of high speed, flange mounted pumps in $\frac{3}{8}$ ", $\frac{1}{2}$ " and $\frac{3}{4}$ " port sizes for replacement of present gear pumps on marine engines.

These models operate at speeds up to 3500 rpm., and are self-priming at all speeds. They start instantly, and will not lose their prime when the engine is idling. All models feature the easily removed neoprene impeller and lip-type seal.

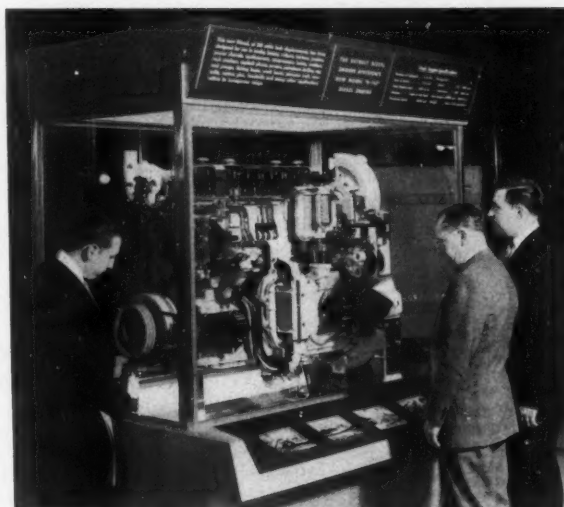
At 10' head and 3500 rpm., the $\frac{3}{8}$ " plain bearing pump will deliver 7.3 gpm; the $\frac{1}{2}$ " ball bearing pump, 11.3 gpm.; and the $\frac{3}{4}$ " unit, 19 gpm.

A new finger-tip control pump and clutch unit, Model No. 2500, consisting of a $1\frac{1}{4}$ " Jabsco pump with built-in friction, cone-type clutch with a sheave for V-belt operation, has been developed. The unit has an over-all length of less than 7 $\frac{3}{4}$ ". The unit is suitable for remote control by either a plain or Boden-type cable or electric solenoid. At 2200 rpm. the pump will deliver 61.4 gpm. against a 10' head.

Esso Features Information Lounge

Esso Standard Oil Company again featured its popular Information Lounge. Counselors from the Company provided information on marine lubrication, maintenance and equipment.

As an added feature, Esso conducted a guessing contest involving the number of Esso ovals imprinted on a revolving oil drum.



Motorized cutaway model of "6-110" General Motors 275 hp. Diesel.

Detroit Diesel Shows Cutaway Engine

The exhibit of the Detroit Diesel Engine Division of General Motors Corp. featured the "6-110" marine Diesel, rated 275 hp. A motorized cutaway model of this 2-cycle engine was displayed in a beautifully finished glass-enclosed case.

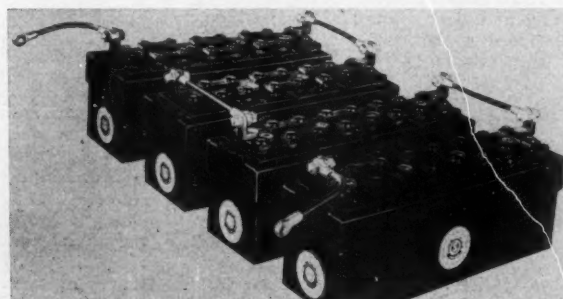
Two other 6-110 Diesels on display included a Model 62200 RA propulsion unit and a heat exchanger model driving a single bearing Delco marine generator. Models of the Series 71 line on display included a 4-cylinder engine and a "matched pair" of 200 hp. propulsion units with right and left-hand rotation.

The engines shown were special display models finished in dove grey enamel set off by chromium plated rocker-arm covers and piping. The electric starters and generators were finished in black enamel. Detroit Diesel's Parts Department also had a display covering General Motors marine Diesel engine "factory engineered" parts.

Surrette Offers New Types of Batteries

Surrette Storage Battery Co. displayed a complete range of sizes, capacities, and voltages of batteries. Several new types of batteries have been added to the line to meet the requirements of the smallest craft to the largest tug afloat. There are types that will start Diesel engines up to 1800 hp.

There also was a complete line of marine shore converters, 6 to 110 volts D.C., and marine charge retainers for holding the charge in storage batteries while the boat is in storage or at dock. The charge retainers also may be



New type 32-volt, HHG-31 Surrette batteries.

used for maintaining batteries which have been removed from the boat and placed in storage.

The Surette distributor organization has been expanded to provide representatives at all important ports from Nova Scotia to Texas. Experienced personnel is available to render complete marine battery service.

Michigan Offers Several Types of Propellers

Michigan Wheel Co. showed its inboard and outboard propeller lines, including two and three-blade cushion-hub propellers for shifting and disc clutch drive outboard motors, in both aluminum and bronze. Heavy-duty and weedless types of propellers, as well as commercial wheels for inboards, also were featured.

Bendix Shows Depth Recorder Line

Bendix Aviation Corp., Pacific Division, exhibited its full line of Marine Depth Recorders, which includes six models that serve every depth sounding requirement. These models have ranges from 50 feet to 400 fathoms. All models are recording instruments, instantaneously charting undercraft conditions on a permanent record.

The newest model in the line is a low-cost recorder designed specifically for the small boat operation. It is unusually compact and has a 50-fathom range.

Danforth "Hi-Tensile" Anchor Exhibited

The lightweight "Hi-Tensile" Danforth anchor was featured at the Show. While its appearance is similar to Danforth's "Standard" anchor, the "Hi-Tensile" weighs much less, yet has the holding power of the "Standard".

The lighter "Hi-Tensile" is also stronger, with rolled-alloy steel flukes, drop-forged alloy steel shanks, and drawn seamless steel tubing stocks.

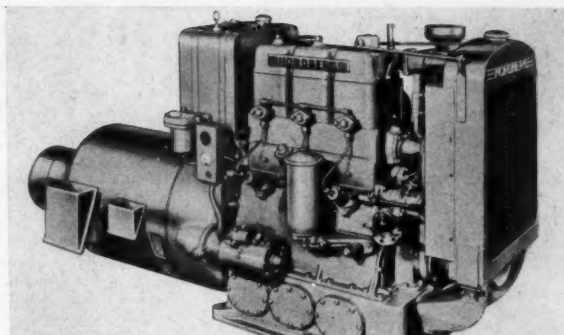
Hudson American Shows Six Telephones

Hudson American Corp. exhibited six marine radio telephones ranging in power from 10 to 100 watts. The "Privateer" 10-watt model features two pre-selected crystal-controlled frequencies, either of which may be set at any point within the operating range of the unit.

The "Corsair II" 12-watt model is recommended for use within a cruising range of 50-100 miles, and features ease and versatility of operation. It has four channels and a standard broadcast receiving unit.

The "Seafarer II", with a power output rating of 35 watts, is built with separate units for the transmitter and power supply. Station selection consists of five channels for use within a recommended range of 75-150 miles. Because both the transmitter and receiver switch to the desired frequency simultaneously, the "Seafarer II" automatically remains on frequency.

Hudson American's larger and more powerful instruments are the "Viking I" (50 watts, 6 channels); the "Master Mariner" (80 watts, 6 channels); and the "Viking II" (100 watts, 6 channels).



New Nordberg 45 hp. Diesel generating unit for marine auxiliary uses.

Nordberg Offers New Auxiliary Diesel

The new 45 hp. Nordberg 3-cylinder, 4 cycle, marine 4FS3 Diesel auxiliary engine with $4\frac{1}{2}$ " bore and $5\frac{1}{4}$ " stroke, as well as 1 and 2-cylinder models were exhibited as 6 to 30 kw. Diesel generator units by Nordberg Mfg. Co. These units are rated in a range of 10 to 45 hp. at 1200 to 1800 rpm. and also are built with centrifugal pumps and with clutch power take-off for direct connection or belt drive.

The new 110 hp. Nordberg Bullet gasoline marine engine is a high-speed, lightweight, 4-cycle, 6-cylinder engine. It has a $3\frac{7}{16}$ " bore and $4\frac{1}{2}$ " stroke with a piston displacement of 236.7 cu. in., and develops its rated horsepower at 3400 rpm. The Nordberg "Bluefin" engine, rated 95 hp. at 3200 rpm., has been redesigned to meet the increasing demand for a greater horsepower, higher speed engine at lower cost. It has a low overall length.

A feature of the Nordberg gasoline engines is the Sta-Nu-Tral clutch. Designed as an integral part of the engine, this reverse gear assembly eliminates the fouling of propellers with nets or lines while using the power take-off and provides better maneuverability in close quarters.

Also on display was a ready-to-operate 480 hp., 720 rpm. Nordberg supercharged marine propulsion Diesel with 2.5:1 reduction gear and sailing clutch.

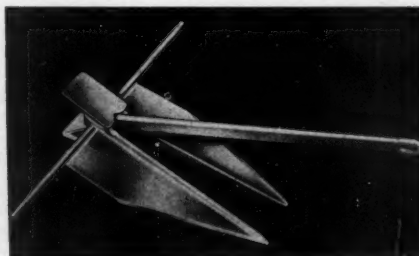
Pettit Features Plastic for Repairing Wood

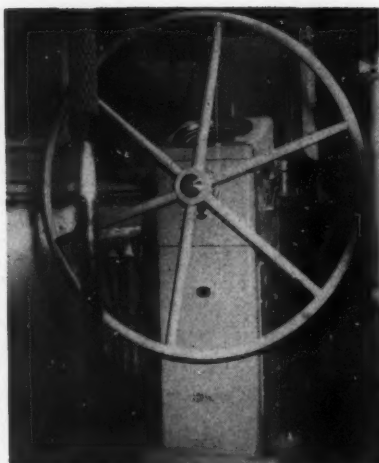
Three new products—plastic surfacer and plastic dough for the repair of wood surfaces, plus #120 thinner, a new paint and varnish thinner claimed to be superior to turpentine, have been added to the Pettit line of marine paints and finishes.

The plastic surfacer is recommended where small indentations or blemishes are to be filled on either wooden or metal surfaces, and is available in white, mahogany and natural. For spots where nail, screw holes or deep gouges require filling, the plastic dough is recommended. It also is useful for filling screw holes in place of wooden



Left: Hudson American's 50-watt Viking radio telephone. Below: Danforth "Hi-Tensile" anchor. Right: Bendix DR-7 depth recorder.





Left: Evinrude Big Twin 25 hp. outboard motor. Center: New Sperry triple steerer. Right: Johnson Sea-Horse 10 hp. outboard motor.

plugs, as it will not shrink. Plastic dough is available in natural and mahogany. Both plastic dough and plastic surfacer are characterized by toughness, quick drying and fast sanding, making them most suitable for prompt re-coating.

In addition, Pettit featured "Tropicop", a recently introduced red bottom paint, which is said to insure positive protection against all types of marine growths.

Chris-Craft Offers Nine Engines

The 1952 line of Chris-Craft marine engines is offered in nine different units, ranging from 60 to 160 hp. Outstanding in the new line are the various reduction drives, adaptable to single or twin engines, thus providing a wide range of installations.

Chris-Craft's 60 hp., 4-cylinder, Model B engine has a cubic inch displacement of 132 with a 3¼" by 4" bore and stroke. Maximum horsepower is developed at 3200 rpm., and total weight in direct drive is 456 lbs. A new 3:1 reduction drive has been developed for this model for installation in larger boats. Reduction drive of 2:1 ratio is also available for this engine.

The Model K, 95 hp. series is of the 6-cylinder, L-head type and features seven-bearing crankshaft, oil coolers and hand-priming fuel pumps. Also included in this series is the KL engine developing 105 hp. at 3200 rpm.

The 130 hp. Model M, 6-cylinder 3000 rpm. engine has a cubic inch displacement of 320, 4" bore and 4½" stroke. Model M is available in a long-stroke MC model, developing 145 hp. at the same rpm. Hydraulic clutches and 1.5:1 or 2:1 reduction drives are available for the Models K, KL, M and ML.

For extra heavy-duty power, Chris-Craft offers the 160 hp. Model W. This 3000 rpm. engine has 4¾" bore, 4¾" stroke and displacement of 404". Reduction gears with 1.5:1, 2:1 and 2.5:1 are available.



Model B, 60 hp. Chris-Craft engine.

Evinrude Line for 1952

Evinrude's new 3 hp., 30-pound Lightwin model is a small but relatively powerful alternate firing twin that offers the same performance characteristics as the larger Evinrude models. This powerful "bantam-weight" offers the many advantages of Evinrude's Fisherman Drive, which not only permits full-power operation in thick weeds, but is equally effective over shoals, rocks and snag-filled waters.

Full-range performance, which is a basic engineering characteristic throughout the Evinrude line, permits low-speed trolling, even with the 25 hp. Big Twin. Such comparatively recent developments as gearshift and Duo-Clutch for neutral starting and idling, make a powerful motor as easy to manage as a light motor.

Lightest of Evinrude "big motors" is the 7.5 hp. Fleetwin, which weighs 47 lbs. and has Duo-Clutch and Saffi-Grip Drive for shoal water operation. The 14 hp. Fastwin, which has gearshift and separate 6-gallon Cruis-a-Day tank, is designed to handle heavy loads.

Sperry Presents New Triple Steerer

The new Sperry Gyroscope Co. Triple Steerer which provides for automatic steering through the gyro-compass system, hand-electric steering, or, in emergency, direct manual steering through shafting, chain or cable to either a Sperry electric steering engine or hydraulic power unit, was introduced. Primary users for the Triple Steerer would be vessels where direct manual steering can be obtained from the steering wheel and where automatic steering is desired for operational reasons. Such vessels must be gyro-compass equipped.

When in "gyro" or automatic steering, the Triple Steerer directs a vessel to a new course without any overshooting and holds a selected course precisely despite disturbing forces. This is made possible through "rate" signals which call for just the right amount of rudder to make or hold a course despite such variables as speed, ship's turning momentum, wind and sea conditions.

As in the Gyro-Pilot, automatic course selection in the Triple Steerer is provided by a course-setting pointer superimposed upon a gyro-compass repeater incorporated within the steering stand. The helmsman selects a new course by moving the steering wheel to set the pointer on the exact heading desired.

Johnson Offers Four Outboards

The Johnson Sea-Horse 25, which is capable of speeds from over 30 mph. to trolling, is an alternate firing twin engine weighing less than 4 lbs. per horsepower. With the gearshift control feature offering neutral-forward-reverse, this heavy-duty 25 hp. outboard has found acceptance among commercial users for heavy loads.

Other features of the Sea Horse 25 include separate

6-gallon Mile-Master fuel tank which makes possible a much greater cruising range. The "25" is conveniently arranged for remote control, but for those who prefer the conventional controls, the synchronized spark and throttle, react simultaneously to the operator's touch to the twist-grip speed control located on the steering arm.

At the opposite end of the horsepower range is the new, 29-pound, alternate firing twin Johnson Sea Horse 3, which has an Angle-matic Drive that is weedless, shoal-riding, and shock-resistant.

The 44-pound Sea-Horse 5, is equipped with a neutral clutch, and has slip-clutch that stops propeller action when an underwater obstruction is hit. The Sea-Horse 10, with gear shift control, weighs 58 lbs.

The Johnson motors are corrosion resistant, have stainless steel propeller shafts, drive shafts and underwater screws, and use new rubber spark plug shields.

Gulf Distributes Tide Calendar

The 1952 Gulf Tide Calendar was available at the booth of Gulf Oil Corp. Obtainable from Gulf marine dealers, the calendar contains a computation table with which tidal information can be calculated for various Atlantic and Gulf coast ports.

Also available were the new 1952 Cruisege Harbor Books, which give complete harbor and docking information for all East Coast, Gulf Coast and Inland waters.

The new Gulf decals and globes for Gulf marine dealer stations were on exhibit for the first time. Gulfpride H.D., the newest addition to the line of Gulfpride oils, was on display.

Bowers Shows Batteries and Chargers

Bowers Battery & Spark Plug Co. showed its line of marine batteries in 6, 12, 32 and 110 volts to meet requirements up to 1000 ampere-hour capacity.

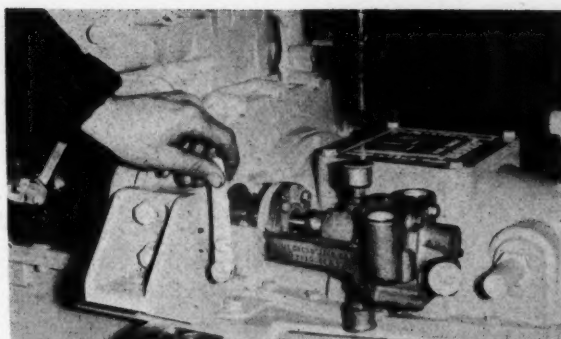
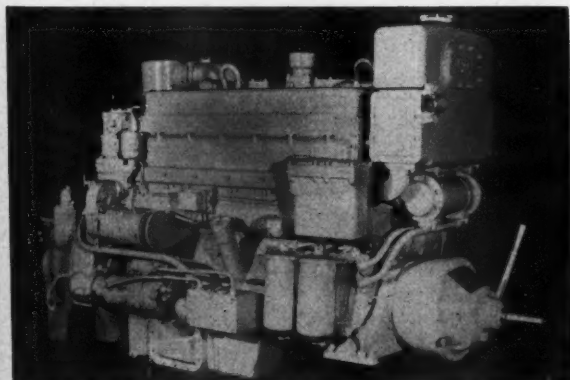
Also exhibited by Bowers was its new six ampere battery charger, which operates on regular 115-volt current, putting a charge into from one to 12 three-cell batteries, or the equivalent of 36 cells, in 6 and 12 volt batteries at the 6-amp. rate. It has an automatic circuit breaker which cuts out when overloaded, and automatically resets.

Caterpillar Exhibits New Marine Diesel

Caterpillar Tractor Co. exhibited its new "Cat" D337 marine Diesel which is now available. It is six cylinder engine, with 5½" bore and 6" stroke, developing 170 continuous horsepower for marine applications. The unit can be equipped for air, electric or independent gasoline engine starting, and has Snow-Nabstedt reverse and reduction gear.

Together with the large V-type engines, the D337 helps round out a range of from 48 to 500 maximum horsepower for "Cat" marine engines.

The "Cat" D397, equipped with windows so visitors could see inside the engine, was another feature of the exhibit. This is a V-12, 5¼ x 8 Diesel, rated 400 hp. continuous. Also shown was the D375, V-8, 5¼ x 8, 270 hp. Caterpillar Diesel which has Twin Disc reverse and reduction gear.



An engine driven bilge pump, with a small clutch so mounted on a Palmer engine that the operator can control the pumping of the bilge either by operating the small control lever or through a series of rods and levers to the bulkhead.

Palmer Shows Several Models

Palmer Bros. Engine Corp. had an extensive display of marine engines and accessory equipment, including its PH models which are rated 48, 80 and 125 hp. at 3000 rpm. The 80 hp. unit is a 6-cylinder, 230 cubic inch engine, designed for heavy service.

The 125 hp., 320 cubic inch Palmer has a completely water jacketed manifold, with clean-out plates. This construction prevents the usual heat stresses which arise due to hot exhaust runners and impaired circulation.

The Palmer ZR-4, heavy duty engine, developing 40 hp. at 800 rpm. was shown in a dual ignition, electrically started type. This engine is manufactured in one, two, three and four cylinder types.

Also shown were the Palmer RND-1, single cylinder, 9 hp., 1000 rpm. Diesel for auxiliary purposes; the Palmer model HH, 2 cylinder, 10 hp., 1600 rpm. hand starting engine with reverse gear; and the model BH, 6 hp. single cylinder engine.

Moffitt Displays Goodrich Cutless Bearings

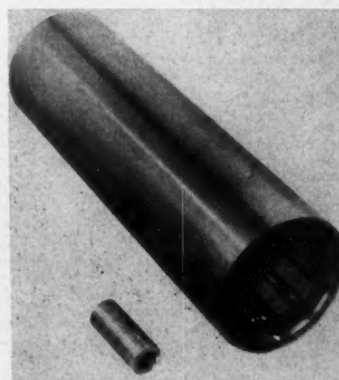
Goodrich Cutless rubber bearings were exhibited by Lucian Q. Moffitt, Inc., National distributors. Manufactured by The B. F. Goodrich Company, Cutless bearings now are all made of Ameripol oil-resistant rubber, which has greatly increased their service life.

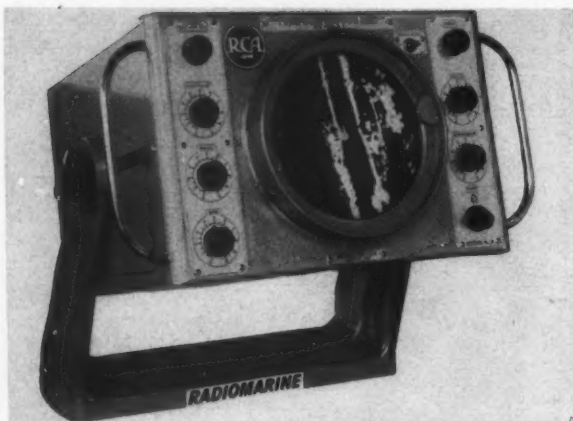
Oils, sludges and waste chemicals often found in waters where boats are operated do not affect this type lining for bearings. Lubricated by water and thus slippery when wet, Cutless bearings repel gritty, abrasive particles.

Sudbury Laboratory Features Bilge Cleaner

Sudbury Laboratory featured its Automatic Bilge Cleaner. When added to the bilge water, this product emulsifies all gasoline, fuel oil, grease, slime and scum, and makes a milky solution that can be easily and completely pumped overboard. It is non-caustic, harmless to hands, paint, fastenings, etc. Since the oil and gasoline are emulsified with the bilge water rather than left float-

Left: New Caterpillar D337 engine, rated 170 continuous horsepower. A maximum of 40 hp. is delivered by the front power take-off on the engine. At right are 1" size and 6" size Goodrich Cutless rubber bearings.





Indicator unit for Radiomarine Model CR-103 small-craft radar.

ing on top, it reduces the amount of inflammable fumes and helps eliminate fire and explosion hazard.

Also shown was the Aqua-Clear Feeder, which is designed to stop rust and corrosion of the manifold, engine-head and water jacket for a marine gasoline or Diesel engine. The Feeder has no moving parts to wear out or get out of order, and can be quickly installed between the seacock and water pump.

The water flowing through the Feeder picks up a sufficient amount of Aqua-Clear in solution to deposit a thin protective film over the inside of the entire cooling system, thereby preventing the water from actually touching the metal. It is estimated that an Aqua-Clear Feeder will double the life of either a new or old engine.

For cleaning out the water passages in the engine-head, etc., Sudbury makes Marine Water Jacket Cleaner #2, which removes mineral deposits, and Marine Water Jacket Cleaner #1, which removes scale.

Socony Features Model Marine Station

Socony-Vacuum Oil Company's exhibit featured a life-like scale model marine station and demonstrated the importance of correct lubrication for outboard and two cycle oil-gas mix engines using Mobiloil Products. Socony-Vacuum's specialized line of Mobil Marine Products was on display.

Booklets on the care and maintenance of outboard engines, marine product folders, coastwise and inland cruising guides, and the Mail Port Directory listing Socony-Vacuum Mail Ports throughout the nation, were distributed at the booth.

Red Wing Shows Five Engines

Red Wing Motor Co. displayed four gasoline models, the "Meteor" 18 hp., the Arrowhead Junior, 20-40 hp., the Arrowhead, 25-45 hp. and the 6-cylinder Hiawatha Special, 58-90 hp.; also the 4-cylinder D4-30 marine Diesel.

The lightweight Meteor 18 hp. model has been used to power the U. S. Air Force A-3 lifeboats, one of which evacuated 435 people in four days during the recent

Kansas flood. The D4-30 marine Diesel was selected by the Royal Canadian Navy to power its 27' sea skiff patrol boats.

Radiomarine Displays Small-Craft Radar

Radiomarine Corporation of America exhibited its Model CR-103 small-craft radar, which has the power and sensitivity to pick up objects as close as 75 yards and as distant as 20 miles. Operating on a wavelength of 3.2 centimeters, the Model CR-103 has a 30-kilowatt transmitter and a super-sensitive, low-noise receiver that can operate off both AC and DC power supplies. The unit weighs only 400 lbs. installed.

Radiomarine's exhibit also included all of its line of small-craft radio and electronic equipment, including the compact Model ET-8044 5-watt radiotelephone. The 30-watt two-way radiotelephone for medium-sized vessels, known as the Model ET-8037, combines in a single cabinet a 6-channel crystal-controlled receiver and an 8-tube receiver with a built-in speaker and integral power supply. The set can be equipped with a remote control unit and an automatic ringing device, which permits selective telephone service similar to that on land. Also included is a newly-designed "squench circuit", which automatically silences the receiver during standby periods when no signals are on the air.

Radiomarine also displayed its 75-watt, 10-channel Model ET-8012 ship-to-shore radiotelephone for the larger craft. Inclusion of the new "Vodas" circuit in this set makes unnecessary the old "press-to-talk" type of microphone operation. The sound waves of the operator's voice automatically put the carrier on the air.

The Model AR-8711 radio direction finder was exhibited with both inside and outside loops, to show installation methods for both wood and steel craft. The unit weighs only 14 lbs. and is combined with a 3-band receiver.

International Nickel Consultation Center

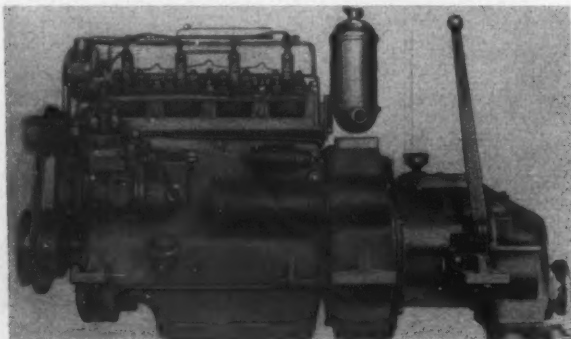
A technical consultation center on metal problems such as corrosion-resisting, non-magnetic, and high strength alloys was offered by International Nickel Co. Due to Government restrictions, only boats that are essential to defense, which includes commercial fishermen, can obtain the high nickel alloys such as Monel. But the exhibit showed basic applications for all marine and motor boat uses, including corrosion-resistant fuel and water tanks, constructed in accordance with National Fire Protection Association recommendations.

The type of ring-toothed shank, corrosion-resistant nail which fastened the Gold Cup winning, 160 mph. racers like *Slo-Mo-Shun IV* and *V* so firmly that not even the varnish cracked, was on display.

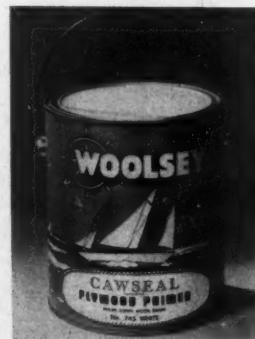
Woolsey Has Giant Color Schemer

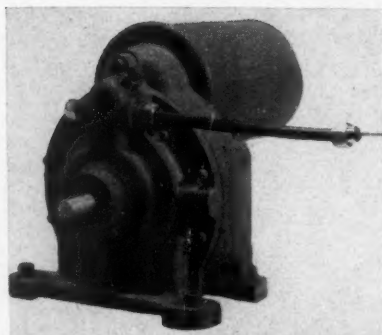
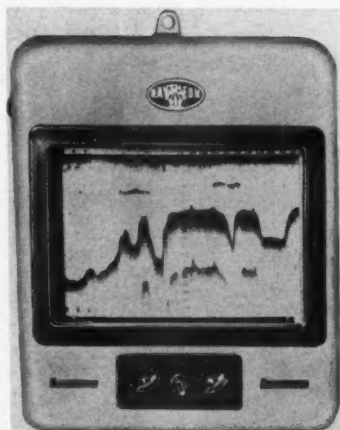
A giant new Woolsey color schemer enabled viewers to actually observe up to 10,000 color combinations for the deck, topside, boot-top and bottom of a boat, prior to painting. This made possible visualization of exactly how a boat would appear when painted. Another part of the Woolsey exhibit depicted color scheming on scale models of craft which were assembled especially for the Show.

A new, handy book-form color schemer capable of

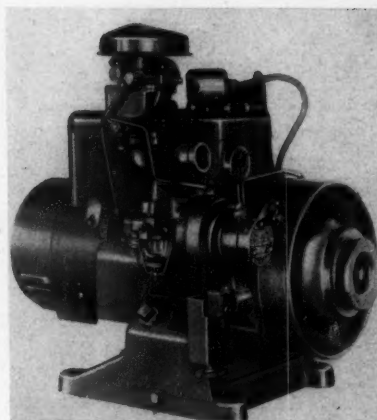


Left: Red Wing Model D4-30, 4-cylinder, 30 hp. Diesel. Right: Woolsey's new, white Cawseal plywood primer.





Left: Shoal range Submarine Signal Fathometer, Jr. Above: New heavy-duty Model "52" Photo Electric Pilot power unit. Right: Model MKH Onan electric generating plant.



actually visualizing more than 10,000 color combinations, is available for use at Woolsey dealers.

Woolsey's exhibit also previewed several new marine paints, including the stylized Cawlux colors; and Cawseal durable white primer, developed especially for use on plywood. This primer helps to reduce hairline cracking—to stop suction as well as hold down the grain of plywoods, fir, and other soft woods.

Raytheon Shows Shoal Water Fathometer

Raytheon Mfg. Co. exhibited its shoal range Model 1373S Submarine Signal Fathometer Jr., designed especially for fishing operations in coastal waters. With a chart calibrated in feet 0-200, variations in bottom contour and indications from fish schools are shown three times larger than on previous deep-range Submarine Signal Fathometer Jr. recorders. The sounding rate, too, is three times faster, being increased to 282 soundings per minute with a corresponding increase in detail. The stylus markings can be extended horizontally if desired by the installation of a motor which increases chart speed. A change switch enables the operator to change the range to 200-400', permitting use in deeper water where the same increased definition is made available.

Other Submarine Signal depth sounders (indicating models) shown included the Fathometer Cadet, which covers depth ranges from 1' to 160'; the Model DE-102, which has ranges of 12 to 240' and 2 to 240 fathoms, and the Model 1080B with range to 600' or 100 fathoms. The ranges of the Model DE-103 Recording Fathometer include 12-300' and 300-600' or 2-300 and 300-600 fathoms.

Raytheon also exhibited its new 7-channel 25-watt, Model RF marine radiotelephone; and its 35-watt Model RG and 10-watt, 4-channel models.

The Raytheon Mariners Pathfinder Jr. radar, designed for small craft, was displayed. Its range accuracy is within 2 percent, and bearing accuracy is within 2 degrees. The cathode ray indicator is a 7" high definition tube, and a magnifying lens is supplied to provide enlargement to about the equivalent of a 10" tube size presentation.

Onan Has Electric Generating Plants

Three models of electric generating plants were shown by D. W. Onan & Sons, Inc. Model MKH, obtainable in A.C. models with 750 watts capacity and in battery charging models from 400 to 1,000 watts, was included with Onan marine electric plants in the 1,000-watt to 3,000-watt ranges in both A.C. and D.C. models.

A 32-volt, 2,000-watt battery-charging generator with wall-mount control also was exhibited. This easy-to-install generator charges 32-volt, 16-cell lead batteries regardless of variations in driven speed within the range of 1,000 and 3,000 rpm.

Onan marine electric plants are powered by heavy-duty 4-cycle, gasoline engines equipped with rubber impeller water pump, thermostatic temperature control and high-water temperature cut-off.

New Heavy Duty Photo Electric Pilot

The new heavy duty model "52" Photo-Electric Pilot, made by Photo-Electric Pilot Corp., for automatic steering of fishing boats, was displayed at the Show.

The control cabinet houses all electronic parts in specially designed waterproof metal jacket. Mercury switches that can be easily changed when necessary are now a part of the motor contactor.

A bronze bushing is used as an integral part of the lower section of the binnacle yoke in order to provide better bearing service for the $\frac{1}{8}$ " balls on which the yoke is mounted and rotates. This eliminates friction in the binnacle and reduces the load on the drive cable approximately 50%. The direction of binnacle rotation can be changed by simply reversing the binnacle drive cable.

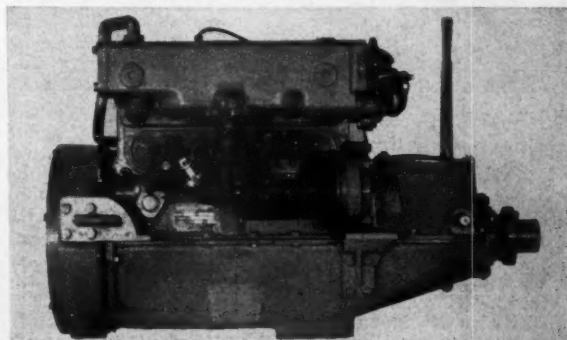
The power unit has a rugged cast gear case which is designed for heavy work and abuse under extreme conditions. A completely new, planetary gear-type clutch assembly is now a part of the power unit, giving it a more compact design. It is precisioned for accurate engagement and disengagement of the automatic steering by the Photo-Electric Pilot from hand operation.

Lathrop Features LH-Master Engine

The new Lathrop LH-Master engine was a feature of Lathrop Engine Company's line of 19 models, gasoline and Diesel. In its four cylinders, the LH Master develops 70 hp. at 2500 rpm. yet has an overall length of only 28 $\frac{1}{4}$ ", weighs 795 lbs., and has a displacement of 214 cubic inches, with 4" bore and 4 $\frac{1}{2}$ " stroke.

The LH-Master has a counter-balanced crank shaft for smooth performance at all speeds, five main bearing crank shaft for long life, oil cooler, starting motor and generator with voltage control. Extras available are reduction gears (ratios 1 $\frac{1}{2}$:1, 2:1, 3:1), Twin Disc power take-off, instrument panel, fuel pump, oil filter and Send-Dure fresh-water cooling mounted on the engine. Other LH models range from 45 to 132 hp.

Also shown were the Lathrop Mystic models which are



Lathrop LH-Master engine, which delivers 70 hp. at 2500 rpm.

fully marined engines, being built "from the ground up" in the Lathrop factory. The 6-cylinder Mystic 125 delivers 130 hp. at 1800 rpm. while the Mystic 175 is rated 175 hp. at 1535 rpm. The Mystic 125 at the Show was fitted with a blower on the flywheel as an integral part of the engine, designed to remove fumes from the engine room during operation and keep the engine cool.

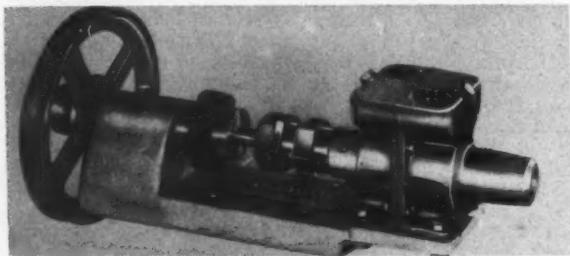
Albina Direct-Controlled Power Take-Off

A direct-controlled power take-off for bilge pumps and generators was shown by Albina Engine & Machine Works. The unit is designed for installations where it is desirable to control auxiliary equipment directly at the power source rather than having remote controls. It comprises a simple cam arrangement that engages the take-off and friction sheaves when the handle is turned in either direction. Also available are chain and lever-operated controls, adaptable to any engine.

Eco Pumps Have Ball Bearing Drive

Eco Engineering Company featured its complete line of gearless marine pumps. Capacities of from ½ gpm. to 20 gpm. are available with port sizes of ¼", ¾", ½", and ¾". All pumps are of the positive displacement type employing two impellers on a single shaft. The Eco gearless pumps operate in clockwise or counter-clockwise rotation without loss of capacity or efficiency. Housings are of naval bronze forgings with internal working parts constructed of materials suitable for either fresh or salt water.

A special accessory furnished with Eco pumps is a ball bearing V-belt drive, which lessens stresses and strains on the shaft and other internal working parts such as the weight of the pulley, the tension pull of the V-Belt, and the variations in power impulses from the driver.



An Eco gearless pump.

Snow-Nabstedt Features Marine Gears

The Snow-Nabstedt Gear Corp. displayed many of its hydraulic and manually-operated marine gears, ranging from 4 to 1000 hp. The exhibit included the gears developed for high speed air-cooled and water-cooled engines and standard gears for work boat engines developing up to 1000 hp. at 750 rpm. The larger marine gears are air operated for simple push button remote control from one or more stations.

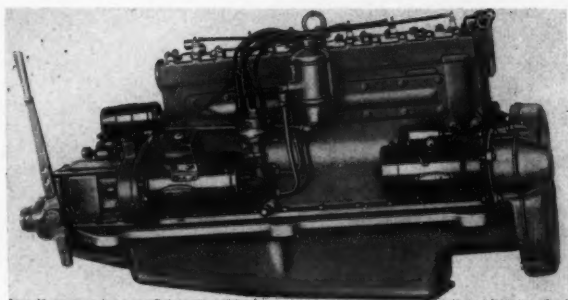
Snow-Nabstedt hydraulic gears were developed to meet the trend for light remote controls. These gears will replace present manually-operated gears in same range.

Cut-open models showed the service features and working principles, the non-metallic lined cone clutches, and the herring-bone reduction gears. The simplified method of exchanging reduction gears without disturbing the alignment between engine and reverse gear also was shown.

White Shows Surecho Repeater

Highlight of the Wilfrid O. White & Sons, Inc. exhibit was their new Surecho Repeater for use with the Surecho 60-fathom supersonic depth-sounder. With a Repeater unit, the boat operator has two indicators for alternate depth indicating in different positions aboard the boat. The equipment is easily installed, and is designed for use with 6, 12 or 32-volt systems.

White also displayed the 5, 6, 7 and 8 inch models of the Constellation compass; and the 3½ inch Corsair compass, of which over 9000 have been produced.



Universal 60 hp. Blue Jacket Six direct drive marine engine.

Universal Line for 1952

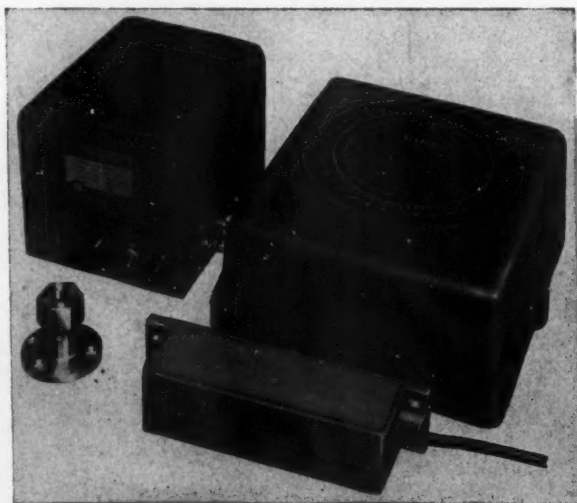
Newest in the Universal Motor Co. line for 1952 are its series of 340 cu. in. piston displacement Super-Sixes. One of these is the 130 hp. Stevedore series designed for fishing boats, where sustained operation is required, and where short overall length is desired. The engine is offered in a choice of reduction ratios and with conventional or hydraulic fingertip reverse gears, and operates at a maximum of 2800 rpm.

In the 260 cu. in. piston displacement class, Universal offers the 90 hp., 3000 rpm. Cruiser Six and the Sea Lion Six. Features of both the Cruiser Six and the Sea Lion Six include chrome nickel alloy iron castings; water jackets completely encircling each cylinder; built-in reverse and reduction gears; full length oil pan, and gear driven accessories.

The Universal silent herringbone reduction gear, and Twin Disc clutch and front power take-off can be supplied for several Universal models. For boats with heavy electrical needs, Universal can furnish special auxiliary generator equipment having a charging rate up to 25 amps.

The line of True Marine light plants offered by Universal starts with a 300-watt, 1-cylinder, water-cooled, 6-volt battery charger in the gasoline models and moves progressively through a series of 600-watt, 12-volt; 750-watt, 1200-watt, and 2000-watt, 32-volt battery chargers. Larger 2, 4 and 6-cylinder models range from 2500 to 25,000 watts in the gasoline line, entirely marine in operation and design. Two new models, the 1200 and 2000-watt battery chargers, have been added to the line.

The Diesel series of light plants is offered in 1, 2, 3, and 6-cylinder models and ranges from 2000 to 36,000-watts. The 2000 and 5000-watt sizes are 1-cylinder units; the 10,000-watt models are 2-cylinder; 15,000 and 18,000-watt plants are offered in 3-cylinder models, and all units of higher capacity are 6-cylinder generators.



Wilfrid O. White & Sons Surecho 60-fathom supersonic standard depth-sounder equipment which can be supplied with a repeater unit.

International Paint Has Boat Models

International Paint Co. had actual three-dimensional models of boats, each painted differently, to give a perfect visualization of how a vessel would look if painted in any one of the combinations. There also were Interlux Color Combination Guide Sheets available, showing these same hulls and many others, all reproduced in full color. Each combination was keyed so that for any combination the boatman selected, he had the names and numbers of the colors used.

In addition to the color combination feature of the exhibit, anti-fouling bottom paint was on display. Another feature of the International exhibit was the line of sundry items, such as putties, compositions, cements, rot inhibitors, canvas preservatives, etc.



International Paint Co. exhibit.

Bludworth Shows New Direction Finder



Bludworth "Port Pilot" direction finder.

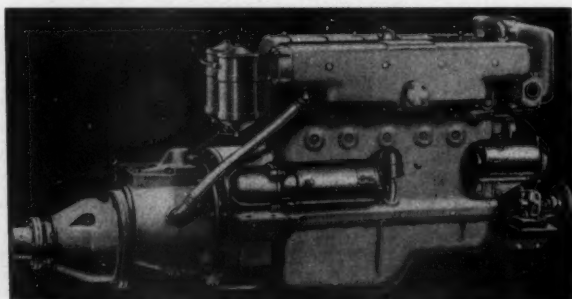
The Bludworth Marine display consisted of several direction finders that ranged from the small self-contained "Port Pilot" on up to the accurate outside loop "Standard Arrow". The new three-frequency band direction finder that features a visual null meter, also was exhibited.

Bludworth showed two Depthometers, including the Model ES-121, an all-electronic unit using a speedometer-like indicator dial that ranges up to 200'. The other unit was a combination indicator-recorder that has a range of 130 fathoms and was designed for use by fishermen.

Gray Exhibits Lightweight Diesel

A new Diesel model shown for the first time by Gray Marine Motor Co. was a 6-cylinder lightweight engine, originally developed for the U.S. Navy, delivering 100 hp. at 2200 rpm. With heavy duty Paragon hydraulic reverse gear, and 2:1 or 3:1 reduction gear, the new Diesel has an overall length of 69 in. and weighs 1600 lbs., only 200 lbs. heavier than the Gray gasoline engine of the same piston displacement. The new Diesel is of the 4-cycle, high-speed type, with aluminum housings and oil pan, Bosch fuel pump, and fresh-water cooling system.

Gray offers four other Diesels, in four and six cylinders, rated 30, 50, 100 and 135 continuous horsepower respectively. Gray has 16 gasoline engines designed for commercial fishing. These include the "Lugger Series" for 8-12 mile vessels, and the higher speed "Express Series" for faster boats. Both styles come equipped with Thermogard, Gray's automatic temperature control. Piston displacements range from 69 to 427 cu. in., and power from 16 to 150 hp.



Gray's new lightweight Diesel, rated 100 continuous hp.

A special style of the Gray Lugger Four-162, rated 42 hp. at 1800 rpm., with shielded hot manifold, is made for operation on kerosene.

An improvement for Gray's smaller 4-cylinder engines is a new automatic temperature control attachment for use on the 69, 91 and 112 cu. in. models. Gray's smallest "Fours" also are now available with an improved fresh-water cooling system developed during the past year.

Chrysler Engines Have Radio Shielding

Ten marine engines ranging in size from 87 to 165 hp. held the spotlight in the Chrysler Corporation's Marine Engine Division exhibit. For the first time, the Chrysler line incorporates as standard equipment two developments made for the armed services—radio shielding and an improved weatherproofing of the entire electrical system that means longer life in all types of climatic use.

The models shown included the seven basic Chrysler marine engines, the 6-cylinder Ace, 87 hp. at 2800 rpm.; Crown, 104 hp. at 2800 rpm.; Ace Special, 105 hp. at 3600 rpm.; Crown Special, 125 hp. at 3600 rpm.; and Majestic, 160 hp. at 3000 rpm.; and two 8-cylinder engines, the Royal, 135 hp. at 2800 rpm.; and Royal Special, 165 hp. at 3600 rpm.

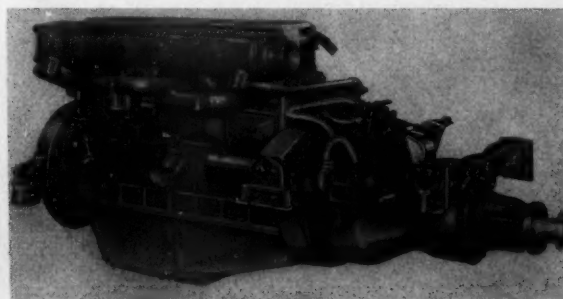
Straight-drive, reduction gear or vee-drive options are available in all engines in ratios of 1.5, 2, 2.5, 3 and 4 to 1 (with the exception of the vee-drive, where ratios are 1.5 and 2 to 1). Reduction gears can be easily assembled in four different positions. A front power take-off is available as extra equipment. Other features of the Chrysler marine engines include an accessory hydraulic control which provides smooth, effortless gear shifting.

Marine Products Non-Skid Deck Material

A new non-skid, rubberized material for deck surfaces, and a new line of fiber plastic bearings ranging in size from $\frac{3}{4}$ x 1 x 3 up to 6 x $7\frac{1}{2}$ x 24, with 70 intermediate sizes, were introduced by Marine Products, Inc.

Known as Grit "500", the new non-slip surfacing material is recommended for decks, catwalks, companionways, ramps, ladders, etc. It is not affected by grease, oil, gas or water, and is easy to apply with trowel or stiff bristle brush.

Among products which the firm showed for stopping



The Chrysler Royal Special, which delivers 165 hp.

New Jersey Fishing Party Boat Fares Tax Exempt

Fishing party boat fares have been exempted from the Federal transportation tax under revisions and amendments of the Revenue Act of 1951. An amendment introduced in the House of Representatives by Congressman T. Millet Hand and subsequently passed by both Houses of Congress was incorporated in the new Federal tax law recently enacted by Congress and signed into law by President Truman.

The amendment will relieve fishing boat operators of the task of collecting the transportation tax and filing returns and payments of the tax with Collectors of Internal Revenue.

May Improve Ocean County Waterways

There is hope that four important Ocean County waterways soon may be improved, among them Tuckerton Creek. This developed as the result of a recent conference of County officials with members of the Navigation Council of the New Jersey State Department of Conservation and Economic Development.

Sen. W. Steelman Mathis and Freeholder A. Paul King presented Ocean County's case for waterway improvements and maintenance. The areas under discussion in addition to Tuckerton Creek, are Liberty Thorofare in Little Egg Harbor Bay; Stafford Township Creek; West Creek, and several points in Barnegat Bay. Tuckerton Creek, the most frequently used waterway in Southern Ocean County, is an important artery of marine traffic.

Buys Sub-Chaser "Pamlico"

Capt. Herman Roeburg of Wildwood, N. J. has purchased the former subchaser *Pamlico* from the State of North Carolina. He is a commercial fisherman and charter boat operator.

boat leaks was Sealer "800" White Mastic, a heavy rubber sealer for use on larger craft where seams and joints can best be caulked with gun or putty knife. It will seal openings up to $\frac{3}{8}$ ".

Morse Instrument Displays Engine Controls

Engine control apparatus which includes functions of starter, clutch and throttle in a single lever, for use on hydraulic reverse gear engines, single or twin, gas or Diesel, was a feature of Morse Instrument Company's exhibit. The unit has automatic stops between clutch and throttle ranges, automatic increase of throttle for emergency reversing, and throttle range limit in neutral.

Also displayed was a Chargicator, which shows the exact charge in the batteries by means of a push-button indicator unit in the pilot house.

Portable Sealed Beam Searchlights

New models of sealed beam searchlights were featured by Portable Light Co., including the "Ray-Line" No. 173-A. This new searchlight is being used on many of the small vessels being built for the Armed Forces. It is heavily constructed and can be controlled with ease.

The full line of "Half-Mile-Ray" and "One-Mile-Ray" searchlights also was on display. These range from 5 to 20" in diameter and are suitable for all types of craft.

Ferdinand Displays Jeffery's Marine Glue

L. W. Ferdinand & Co., Inc. exclusive representatives of Alfred Jeffery & Co. in the United States for nearly 50 years, displayed Jeffery's marine glues.

In addition Ferdinand showed its full line of Ferdico Marine Compounds. These include Ferdico Aviation Liquid Marine Glue and Ferdico Canvas Cement, which have been fortified with a preservative to protect against rot, mildew, toredos and other marine pests.



The "Rainbow", 40' dragger owned by Capt. Lester Davis of Wakefield, R. I. The boat is powered with a General Motors Diesel which turns 24 x 20 Columbia propeller through 2:1 Twin Disc reduction gear. The vessel is painted with Pettit paint, and is equipped with Danforth anchor, Linen Thread Co. Gold Medal nets, and American Steel & Wire Co. cable. She uses Mobil fuel oil.

Rhode Island Dealer Wants Law To Permit Clam Farming

F. Nelson Blount, Warren shellfish dealer, has proposed that the State enact legislation to permit clam farming in bay waters. He asked the Governor to arrange a round-table conference with shellfish men to discuss the industry's problems.

Many other States encourage clam farming, Blount said, adding: "It would be especially desirable here now because what is left of our once prosperous oyster industry is now faced with near extinction unless substitute programs can be found to keep the oyster organization intact until such time as an oyster set is obtained."

Blount said that Rhode Island has thousands of acres of quahog ground not being utilized because it is in polluted waters. He added that the State Department of Health regulations permit the transplanting of shellfish from polluted to clean areas, but that operation is not carried on in Rhode Island because the State does not allow clam farming.

Blount went on to tell the Governor that Rhode Island has one of the largest quahog processing plants in the nation, but that a majority of the quahaugs prepared there come from out of the State.

"Now it is not necessary to spend \$1,000,000 to revive the Rhode Island quahog industry to the point that it could supply the largest percentage of quahaugs. Nor is this a question of tongers vs. dredgers, but rather one of Rhode Island industry vs. out-of-State industry," Blount said. He asked the Governor to include the shellfish industry among the Rhode Island businesses which the State will fight to protect against "raids" by other States.

Dragger Blast Suit Settled

The Federal Government last month made a compromise settlement of \$55,125 in five negligence actions arising from destruction of the fishing dragger *Capt. Nathaniel B. Palmer*. The vessel's nets picked up an explosive during fishing operations off Block Island in 1945.

The vessel, a 50-footer working out of Stonington, Conn., was blown to bits by the explosion. The bodies of the three men killed never were found. Romeo Bessette of Berlin, N. H. was rescued by another fishing vessel which was working about four miles distant and whose crewmen witnessed the blast.

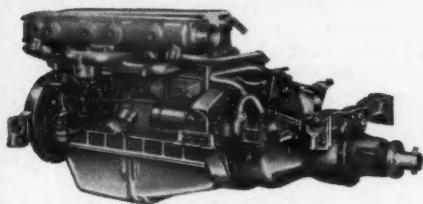
New Fish Concern Formed

A new concern, the Providence Fish Co., was formed last month with James J. McAleer, Alton R. Matteson and Edith A. Matteson of East Providence as incorporators. The new firm will buy and sell all kinds of seafood and fish both at wholesale and retail.

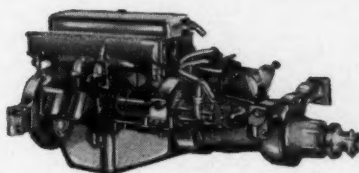
Again in '52

CHRYSLER

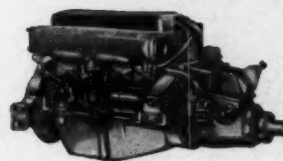
**King of the
Waterways**



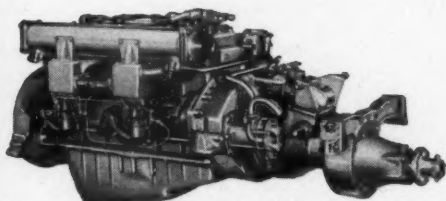
MODEL M-48 ROYAL SPECIAL



MODEL M-47-S CROWN SPECIAL



MODEL M-46-S ACE SPECIAL

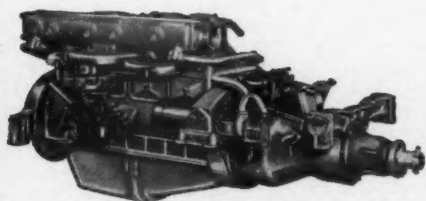


MODEL M-49 MAJESTIC

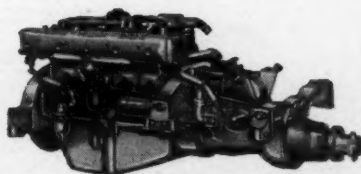
Seven great engines . . . each *Marine* designed by famous Chrysler *Marine* Engineers. 8 reduction gear ratios, opposite rotation engines, Vee Drive, Power Take-off and Hydraulic Control are only a few of the features.

Compare these engines for features, engineering, performance, dependability—economy! A Chrysler *Marine* Engine is King of the Waterways.

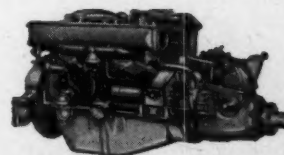
See them at the National Motor Boat Show, January 11th-19th in New York, or use the coupon for full information.



MODEL M-48 ROYAL



MODEL M-47 CROWN



MODEL M-46 ACE

CHRYSLER

**AMERICA'S No. 1
MARINE ENGINE**

Mail this coupon for details!

Marine Engine Division, Chrysler Corporation
12200 East Jefferson Avenue, Detroit, Michigan

Send me literature on your 1952 line ☐

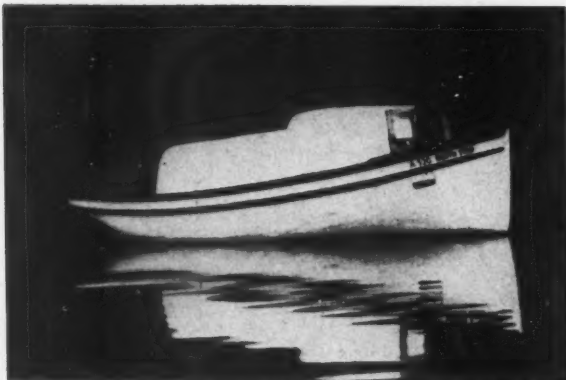
NAME _____

STREET _____

CITY _____

TYPE OF BOAT OWNED _____

STATE _____



Gust Mikkola's 36' commercial fishing boat "North Star" of Hancock, Mich., which is powered with a 95 hp. Chris-Craft gasoline engine.

Great Lakes Fishermen Make Record Herring Landings

During the October-December herring run, millions of pounds of herring were harvested from the Great Lakes. The regional yield of lake herring from Michigan's Delta County waters of Bays de Noc in the northern Lake Michigan area was considerably over last year's mark, having totalled more than 2,000,000 lbs.

Another sizable yield was made by Lake Superior herring netters who operate on Keweenaw Bay from Houghton County, Mich. There alone the herring catch is expected to bring \$1,000,000 to local commercial fisheries this season.

Roy Jensen of Jensen & Jensen Fish Market in Escanaba, Mich., one of the major fish buyers and wholesalers in that area, reported having received about 50,000 lbs. of locally-caught herring in one day. Green Bay fishermen have been hauling in herring by the ton, thus balancing out the lighter catches of yellow pike, whitefish and other leading species.

In the Wisconsin area of Lake Superior, herring netters also have been getting good yields. Minnesota netters operating on Lake Superior came up with some nice catches, as did the Brimley, Mich. fishermen who operate in the Whitefish Bay area.

At Menominee-Marquette, herring fishermen made big yields. Dormer Fish Co., at Menominee, Mich., is the major herring processor there.

In the various herring producing ports, fish buyers representing numerous wholesalers have been on hand to buy herring. Mink ranchers have bought huge quantities of lake herring for their fur-bearing animals. Green Bay herring have been ranging from 4 to 6¢ a lb., while in the Saginaw Bay area herring (of a larger size) have been bringing 12¢ a lb., a drop from a previous price level.

At Bayport, Mich., on Saginaw Bay in Lake Huron, herring fishermen have been getting big yields. However, severe weather impeded operations some of the time, and ice movement caused nets to tear, rendering some of them inaccessible. Herring in 100-lb. lots has been bringing 12¢ a lb. at Bayport docks.

Lake Huron's Canadian herring netters have been enjoying good yields. Both Lakes Ontario and Erie came up with sizable herring and cisco (a species of herring) yields during the 1951 Fall-Winter season.

An increased demand for smoked and pickled herring caused processors to cure and pickle more herring this year.

Good Chub Yields in Lake Michigan

Outside of herring production, commercial fishing on all the Great Lakes during December was, generally, fair. Lake Superior trout catches were moderate; whitefish yields from the big lake were light. Lake Michigan came up with nice chub yields before the closing of the season.

Good hauls of pike, sheepshead, perch, herring and several other species were made from Lake Erie early in December. Lake St. Clair commercial fishermen made moderately good catches of the usual varieties, and Lake Huron takes, other than herring, ran mostly light to fair.

September-October Landings

The September-October commercial harvest from Michigan waters of the Great Lakes amounted to 3,587,000 lbs., as compared to 3,636,000 lbs. taken in the same 2-month period of 1950, according to the Michigan Conservation Department.

Chubs were landed in the heaviest volume during the 2-month period, with a harvest of 824,000 lbs., compared to 573,000 lbs. All except 49,000 lbs. came from Lake Michigan.

Second best was the herring catch, which amounted to 717,000 lbs., as compared to 525,000 lbs. in the same period a year before. About 493,000 lbs. of herring were taken from Lake Michigan.

Third best take was lake trout, with about 470,000 lbs., as compared to 481,000 lbs. Lake Superior produced all except 36 lbs., which indicates that the sea lamprey has done serious damage to lake trout populations of Lakes Michigan and Huron.

Brown Establishes Grand Haven Branch

Brown Fisheries of Whitefish Point, Mich. has a new branch plant at Grand Haven, Mich., on Lake Michigan, from where trap net operations were conducted this latest Fall season. Takes were light due to severe storms which damaged nets. In order to increase production, a gillnet tug will be placed in operation to ply from the Grand Haven branch this Spring.

Brown Fisheries is one of the largest such concerns on the Great Lakes. The firm has several branches, and operates 10 fish tugs.

Tugs Change Hands

James and Wilfred van Hall, Grand Haven, Mich. commercial fishermen, have purchased the 40' Diesel-powered fish tug *Freitag Bros.* from the Freitag Bros. Fishery at South Haven, Mich.

The Freitag Brothers have a new steel fishing tug in operation. The van Hall Bros. have sold their fishing boat the *Van Hall Bros.* to Robert Brady, who has been fishing commercially part time out of Grand Haven during the past 2 years with a smaller craft.

Sea Lamprey Boat Laid Up

Dr. James Moffett of the U. S. Fish & Wildlife Service and his staff of fish scientists who are conducting the sea lamprey campaign work in the Great Lakes, have been forced to postpone the program because of insufficient funds to operate the 60' all-steel fishery research vessel.

Great Lakes commercial fishermen's associations, through their parent federation—the Federation of Freshwater Fisheries and Fishermen—will send committees to Washington when Congress convenes to urge additional funds for use in operating the sea lamprey boat.

Explosion Destroys "Big Chief"

At Sandusky, Ohio, the 50' Lay Fisheries boat *Big Chief*, was blown to bits recently when the craft exploded as she was being refueled. Roy Shephard, master of the vessel, suffered serious cuts and internal injuries.

Lake Superior Trout Yield Shows Gain

Fisheries officials from Michigan, Wisconsin and Minnesota who attended the Tri-State Fisheries Conference at Escanaba in December, report that Lake Superior trout production increased during 1951. Some progress has been made in sea lamprey control, according to Dr. Albert Hazzard, head of the Institute of Fisheries Research, Ann Arbor, Mich.

Charles E. Lay

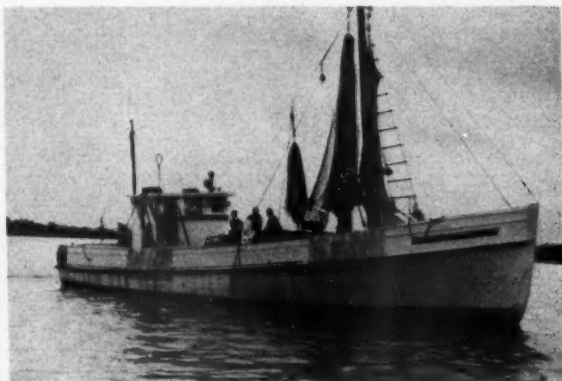
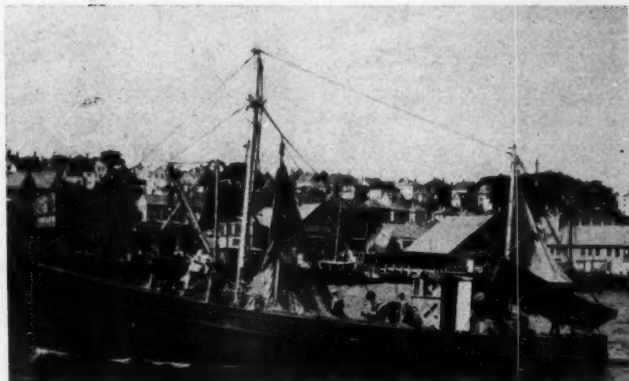
Charles E. Lay, 68, of Sandusky, Ohio, head of the Lay Brothers Fisheries, one of the largest producing and distributing fish companies on Lake Erie, passed away recently after a short illness. Edward Lay, son of Charles E., is now president of the Lay Bros. Fisheries.

Up and Down the Coast

Fishermen Count on **WOLVERINE** for Dependable Dragging **POWER**

The "Austin W." of New Bedford, Mass. Gets Her Second Wolverine

Many fishing boat owners buy a new Wolverine Diesel on the strength of satisfactory, dependable service from a previous Wolverine installation. That's the case with the 77 ft. New Bedford dragger "Austin W.", owned by Capt. Andy Soos of Bridgeport, Conn. The vessel recently was repowered by a 200 hp., 650 rpm., $8\frac{1}{2}$ x $10\frac{1}{2}$, 5 cylinder Wolverine Diesel, turning a 52 x 40, 4-blade propeller through 2:1 reduction gear. This is the vessel's second Wolverine engine.

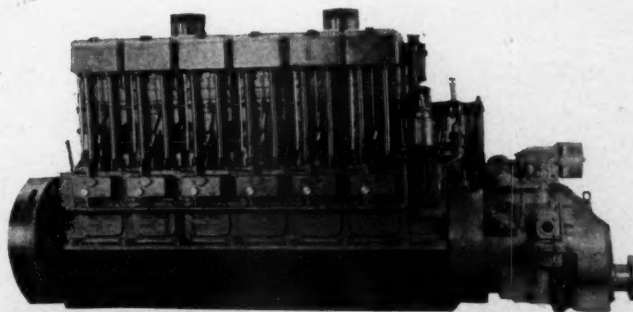


The "Elsie Jane" of Poquoson, Virginia

The 61 ft. dragger "Elsie Jane", owned by Poquoson Sea Food Co. of Poquoson, Virginia, has been equipped with a new Wolverine Diesel. Her engine is 200 hp., 650 rpm., $8\frac{1}{2}$ x $10\frac{1}{2}$, 5 cylinder model, turning a direct drive 44 x 26 propeller. On her official trial, she made 12.3 mph., turning at 520 rpm. The engine, which is one of many in the Chesapeake Bay area, was sold by John W. Jarman of Cambridge, Md., Wolverine distributor for Middle Atlantic States.

An Engine for Every Need

The Wolverine Diesel line includes slow speed, 400 rpm. engines from 120 to 360 hp.; medium speed engines from 120 to 320 hp.; and compact, lightweight Diesels from 125 to 300 hp. Several of the engines are available as turbo-charged models. Illustrated at right is the 6-cylinder, 240 hp., $8\frac{1}{2}$ x $10\frac{1}{2}$ Wolverine. Write, without obligation, for full details.



WOLVERINE MOTOR WORKS, INC.

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Factory Representative: W. H. WHITE, 42 Oxford St., Fairhaven, Mass.

Tel.: New Bedford 4-3950

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INTERNATIONAL BOTTOM PAINTS do keep bottoms clean. They are therefore, bound to save on fuel bills. You as a boatman know that an ordinary coating of barnacles and grass can increase fuel consumption 10% or more. Furthermore, **INTERNATIONAL Bottom Paints** are lasting. They offer protection to the bottom and retain their antifouling properties far longer than ordinary paints.

There are several **INTERNATIONAL Bottoms** made to meet the various types of service and price limitations. Each is the outstanding paint of its kind. Send for color cards and price lists.



FOR METAL BOTTOMS

INTERNATIONAL has developed a combination of a primer and an antifouling paint that offer the maximum protection and preservation of metal bottoms. Send for the two circulars, "**INTERLUX SILVER PRIMOCON**" and "**INTERNATIONAL INTER-TROP No. 50**".

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AGENTS IN EVERY IMPORTANT PORT

Electric Catching of Fish

(Continued from page 18)

electrical circle" in the ocean, they may be chased along in front of a shifting electro-front, i.e., they may be forced to enter a fiord or canal. Experts consider this latest reported development the best and future method.

The new methods not only allow for grand-scale catching as a business proposition, but equally valuable results can be realized in regard to developing the fish-stock. In the spawning period salmon may be narcotized and caught by means of electricity. After they are caught their roe can be swept into a container and impregnated with the milt of other salmon, caught in the same manner. The artificially impregnated roe then can be preserved and transported. In this way it would be possible to hatch fish on a large scale in places where that is desired.

Electro-Catching of Tuna

The question of electro-catching of tunafish already has been solved, but as regards that matter scientists advanced in a special way, still sticking to the method of catching the fish on hooks. The tunafish are paralyzed by an electrical shock a few moments after they have bit the hook. The current is conducted from the ship through a 164' fishing-line.

The first experiments were a failure because the tunafish were not hit by the electricity. The current lost itself in the highly-conducting salt water. Electrodes were then placed in the line some distance away from the hook. When a tunafish has bitten a hook it swims away as swift as lightning. This has the effect that the line places itself alongside of the fish, and thanks to the electrodes the poles are created which make narcosis possible. The first regular catches with the new equipment were made by the cutter *Paloma* of Buesum in Ditmarsken.

The new tuna-catching method has resulted in increasing the proceeds by 100%. To buy the necessary apparatus with four lines at present costs about a thousand dollars. When fishing for tuna in the ordinary manner, half of the fish that bite the hooks tear themselves loose and disappear, but it is claimed that this will not happen with the new method. While normally three or four men are needed for pulling the tunafish on board, one or two men are sufficient with the electric equipment.

But the catching operation must be done quickly, because the tuna is only narcotized for some 30-40 seconds. The tunafish will then wake up and thrash around desperately. It should be killed with a bullet as soon as it has been dragged on deck.

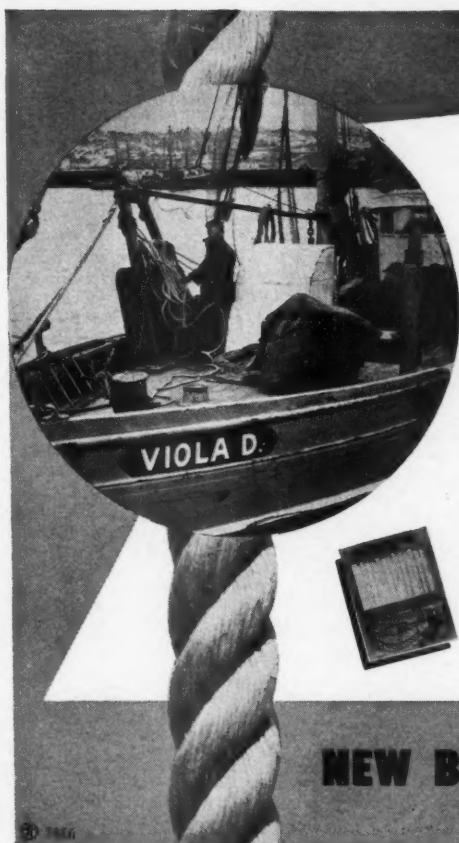
The quality of the electro-caught tuna is finer than that of tuna caught by other methods. Formerly the victim would fight for 20-30 minutes, and in the course of its fight for life various quality-inferiorating stuffs were secreted inside the fish. This can now be avoided. When the tunafish is being hit by the current, its color changes. Its black-bluish back and sides turn light-blue, but this lasts only until the fish has been heaved up on the deck.

Engineer Ficken of the Siemens Schuckert Works has taken part in the work of constructing the new catching-apparatus. The firm is outfitting a complete fleet of German fish-cutters with this new equipment, and the authorities support the fishermen financially in their purchase of the new plants.

Effect on Fish Supply

The development of electro-fishing has caused an amount of anxiety in scientific circles and especially among the fishermen of several countries. It is being attempted in various fashions to put a stop to the threatening decrease of fish in the North Sea and other seas, but now—at the same time—a mass-fishery is being prepared by means of uniquely effective electro-fishing methods. The question asked is whether this new development will lead to catastrophe for the fisheries.

Anxiety has been increased by reports received lately from Danish and Swedish fishermen, who maintain to



On the *Viola D*

IT'S NEW BEDFORD ROPE ALL THE WAY

Stephen Biondo, who owns the *Viola D*, has been using New Bedford Rope for three years for quarter ropes, bull rope, fish tackles, buoys, gilson rope and mooring lines. Capt. Biondo is thoroughly sold on the easy way New Bedford handles and the thoroughly dependable service it gives him.

Once you've tried it, you'll be sold on New Bedford, too. It's laid right to give long service in the roughest seas. It's fully protected against moisture and dry rot, given a special lubricant to reduce internal friction.

Ask for New Bedford Rope the next time you're fitting out. It's tops when the going's tough.

Get this useful New Bedford Chart showing the difference in breaking strength of Manila, Sisal and Nylon.

NEW BEDFORD CORDAGE COMPANY, NEW BEDFORD, MASS.

have found considerable quantities of electrocuted fish in the North Sea and the Baltic.

Dr. P. F. Meyer, one of the inventors whose name is especially well known in Scandinavian scientific fishery circles, states that even if dead fish really have been observed drifting in the water, this is not due to electricity. He said that the new development is based entirely on narcotizing the fish, and if they were killed, there would be no sense to the whole thing.

Dr. Meyer has voiced the opinion that electro-fishing may be very beneficial if people will be sensible. For instance, it will be possible to save small fish in a much higher degree than hitherto, and neither plankton nor fry suffer from electrical current. Nor is the health-condition of the adult fish affected in the slightest degree by an electro-narcosis. Dr. Meyer believes that electro-fishing ought to be possible on a common basis between the nations to the advantage of everybody concerned.

"I do not agree with those who believe that the North Sea and other seas are about being over-fished", Dr. Meyer continues, advancing the following theory: "What is happening is that the fish are 'changing residence', because climatic conditions are changing. Species of fish and birds that previously were found only in subtropical territories, now frequently make an appearance in Northern latitudes. Sardines have been caught in the North Sea, and strange fish species also have been observed in other waters. At the same time enormous schools of "Southern" fishes are now to be found in the Barents Sea and Arctic waters, which has not been the case previously."

International regulation of electro-fishing will no doubt be necessary, according to engineer Herbert Peglow, one of the men who from the very start has been working on applying electro-narcosis in ocean fishing.

Many Countries Interested

The men who invented the electro-fishing equipment are receiving inquiries from all over the world, and American circles have offered them employment in the U.S.A.

However, the German electro-industry is extremely interested in constructing the new plants itself. Therefore, the three men have decided to continue to work in their native country.

South America is keenly interested in joining in the new development, and a special Icelandic emissary has visited Hamburg in order to study electro-fishing. The latest application was received from England, where experts desire to open negotiations with the Germans at the earliest possible date. A similar request has been made by Sweden. Sweden and other countries already have ordered not inconsiderable numbers of the new apparatus which will be used for salmon-catching in rivers. Electro-fishing also is expected to have an important future in Greenland.

Georgia Shad Fishing Season Opens

The shad fishing season opened January 1 and will close April 1 in all counties adjoining the Altamaha River. The Florida shad season has been opening on the first of the year, and to conform to this regulation, shad fishing has been allowed in the St. Mary's River in Georgia on this date. Heretofore this has worked a hardship on the Altamaha fishermen because the market is best at the opening of the season.

Quite a number of Altamaha River area residents fish commercially for shad, and this new ruling will put them on a par with commercial fishermen in Florida and those fishing in the St. Mary's River, as well.

Shrimper Destroyed by Fire

The shrimp boat *Vasco De Gama* of Brunswick was destroyed by fire in the inland waterway north of Daytona Beach on December 12. Owner Joseph Ferra and his helper, William Welch, both of Brunswick, escaped injury. The boat, which was a total loss, had recently been completely rebuilt.



Month after month, thousands of pounds of **EDERER NETTING** is tagged for ports along the Atlantic, Southern Waters, and the Gulf Coast. The fact that each year sees more and more **EDERER** quality netting in these areas, is conclusive evidence that **EDERER NETTING** is tops for ocean or inland water fishing. To be sure of uniformity and strong netting—**ASK FOR EDERER QUALITY WHEN YOU BUY . . .**

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Gloucester Loses Two Fishing Draggers

An explosion tore a gaping hole in the starboard side of the 104-ft Gloucester fishing dragger *Frankie and Rose* on December 9 some nine miles southeast by east of Eastern Point, forced the four-man Gloucester crew to take to the dory, and then caused the 33-year-old former sub-chaser to go to the bottom in less than five minutes. The four crew members included Capt. Joseph Sinagra, owner-master; his brother, James Sinagra, cook; Dominic Longo, engineer; and Angelo Pucci.

The *Frankie and Rose* was built toward the latter part of World War I to be a Navy submarine chaser. Like many others, she was sold at the war's close to fishermen.

Three fishermen were rescued when their 45-ft. fishing dragger *Dale* sank eight miles southeast of Thacher's buoy on December 7. The Gloucester dragger *Viola D.* picked up the trio from a dory.

The rescued crew included Capt. Lawrence Scola, Salvatore Loicano and the latter's younger brother Anthony Loicano. The *Dale* was owned by Mrs. Lawrence Scola and Mrs. Salvatore Loicano. It is believed that the craft struck a submerged object.

Resume Fishing After Holidays

Gloucester fishing draggers left on December 27 to resume offshore fishing after a week's idleness. Some of the boats will be going after groundfish other than ocean perch and taking their fares into Boston to take advantage of the high prices being paid there for groundfish.

Dragger Sinks at Wharf During Storm

Lashed by the storm of December 20th, the 52-ft. fishing dragger *Irma Virginia* parted her lines at Fishermen's Wharf, her starboard stern rising high on the full tide and coming down with tremendous force onto a jagged pier spile which pierced the bottom of the craft. The intruding waters caused the vessel to sink so that the water was halfway up her wheelhouse.

Capt. Sam Frontiero is the owner-skipper and had just come into port from a shore fishing trip. The vessel will be hauled out on the marine railways for repairs.

Would Establish Fish Technological School

Revitalizing the fishing industry through establishing a school of modern techniques in conservation, processing and marketing fish products in Gloucester is called for in a bill filed by Sen. Philip A. Graham.

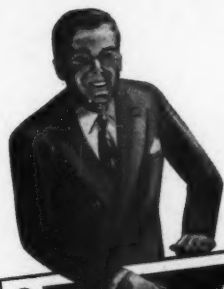
The school would be set up as a branch of the University of Massachusetts. The only school of this type is now operated by the University of Washington in Seattle.

Maryland Conservation Group Plans to Do Oyster Farming

The Maryland Conservation Federation, backed by public subscription, will operate an oyster farm of its own under a plan announced recently by H. Lee Hoffman, federation president. The board of directors of the federation has appropriated \$1,000 toward the project, with the hope that the people of each county and of Baltimore will come forward with a matching contribution. Hoped-for profits would be put back into conservation education in Maryland.

The federation proposes to apply to the Tidewater Fisheries Commission for the use of oyster bottoms in Chesapeake Bay, and the selection of the farm site will be made with the advice of the Chesapeake Biological Laboratory and a committee of practical watermen. Management of the proposed farm would be in the hands of experienced oystermen.

(Continued on opposite page)



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Our Sales, Parts, and Service Departments are all committed to the principle that the worth of the product it sells depends upon the service given by the seller. You can rely on PEMCO.

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Divide Blame in Oyster Boat Loss

The Government, as well as the Somerset Seafood Co., was at fault in the sinking of the seafood firm's 66-ft. oyster boat, the U. S. Fourth Circuit Court of Appeals held on December 20. The decision reversed a Baltimore District Court ruling that the company had an incompetent navigator at the helm.

The Circuit Court ordered the case remanded to the lower court, which is to "assess the damages and to divide these damages between the plaintiff and the defendant." As a result, Somerset will be awarded at least a portion of its loss.

School Oyster Program

According to one prominent educator from Columbia University, the greatest advance in education in 100 years is being made through the joint efforts of the Tidewater Fisheries Commission and the Chesapeake Biological Laboratory.

He was referring to the oyster program being presented to students of Calvert County High School near Prince Frederick, Md. There, the future watermen are not only soaking up technical information on oyster biology, but are planting and growing six acres of their own oysters. All phases of the oyster business are covered during the experiment—from purchasing seed to marketing the final product. Except for occasional professional help and guidance, the students do it all themselves.

This practical approach to conservation education is receiving nation-wide attention. High schools from Deal Island, Rock Hall, and other sections are visiting the Calvert County experiment to study it first-hand and to lay plans for their own scholastic oyster farms.

Capt. Wm. A. Barnes

Capt. Wm. A. Barnes, prominent waterman, died at his home in Crisfield last month at the age of 85. Until poor health compelled him to retire, Capt. Barnes purchased oysters in all parts of the Bay country and freighted them to Crisfield.

North Carolina Fisheries Laboratory to Be Replaced

A long-range building program, which in its entirety will exceed \$100,000, has been initiated on Piver's Island and will include replacement of the existing Fish and Wildlife Service Laboratory. As the new and modern research laboratory, offices, and dormitories go up, the existing three-story structure, for many years a landmark on Piver's Island and in the Beaufort area, will be dismantled. The building program will continue over a period of six years.

Scientists at the Piver's Island laboratory have found that oil is the major cause of pollution of the Hudson and Delaware Rivers and the major tributaries of the Chesapeake Bay area. It has been determined that oil has a very serious effect on the important shad fisheries of these large rivers.

Menhaden Catches Continue Good

Menhaden catches continued good early last month and December 4 saw some of the biggest catches that ever have been made in one day. The fish were described as being so thick "you could walk on them."

Meekins to Resume Fishing

Lieutenant Commander George Harrison Meekins, who recently retired as commander of the Cape Hatteras group of the U. S. Coast Guard's Lifesaving Service, intends to return to commercial fishing. He already has a fishing boat and a stand of nets.

Meekins went fishing in Pamlico Sound when he was very young, and just before his 16th birthday became shipwrecked between Wade Point and Caroon's Point when the oysterman on which he had sailed to Elizabeth City capsized in a blizzard on the return trip.

Equipment and Supply Trade News

Auburn Fishhook Acquires DeWitt Line

The newly formed Auburn Fishhook Company, Inc. of Auburn, N. Y., which purchased the entire Bill DeWitt Fish Hook Division of the Shoe Form Co., Inc., last Fall, is adopting improved manufacturing methods which will enable it to produce one of the most complete lines of American-made fishhooks for the commercial trade.

H. A. Corbett, president of Auburn Fishhook, is a mechanical and industrial engineer who has been closely connected with the fish hook business for the past 12 years, in management, engineering, design and invention of several semi and fully automatic machines.

Austin Donovan, treasurer of Auburn, had been associated with the Bill DeWitt Fish Hook Division for five years, as production manager and assistant sales manager.

New Booklet on Fire Protection

What one should know about modern fire-fighting devices and the different fire extinguishing agents used in them, is contained in a new 32 page illustrated booklet titled "Correct Fire Protection." It is published by the American-LaFrance-Foamite Corporation of Elmira, N. Y.

This new educational booklet gives operators of fire extinguishing equipment information on the correct fire extinguisher for use on every kind of fire. It also illustrates and describes the various sizes of units available for use with different kinds of fire extinguishing agents.

Columbian Rope on Television

Columbian Rope Co., Auburn, N. Y., is being featured on the National Broadcasting Company's television program "Industry on Parade". The process of manufacturing Columbian rope is depicted, and the audience is shown how fibres are selected and how rope is tested. Fifty-six stations from coast to coast are scheduled to carry this program which is sponsored by the National Association of Manufacturers.

New Factory for Ideal Windlass Co.

Ideal Windlass Co., Inc. announces that its new plant in East Greenwich, R. I. is now in full operation. A short time ago the Company moved from Attleboro, Mass. to the new location in order to obtain a more spacious and convenient factory. At the same time, new machinery which

will increase production was added and the drafting and engineering rooms were expanded and re-equipped.

At present, Ideal Windlass is producing deck machinery items for both Army Transportation Corps and Naval vessels. The Company is building special deck equipment for each class of mine sweeper on the present construction program. A catalogue is available upon request.

Duffy Heads Eastern Sales for Sperry

J. P. Duffy, Jr. has been named assistant district manager of Sperry Gyroscope Company's eastern district office, according to A. R. Weckel, general sales manager. The eastern district, with headquarters at 81 Willoughby Street, Brooklyn, is responsible for sales and service of Sperry commercial marine products in the eastern territory extending from Maine to Florida.

Duffy, who has been with the company for 10 years, was a marine service engineer before becoming a sub-district representative at Norfolk in 1943. In 1948, he became a sales engineer at district headquarters. He is a member of the American Institute of Electrical Engineers, the Society of Naval Architects and Marine Engineers, and the Propeller Club, Port of New York.



J. P. Duffy, Jr.

Pittsburgh Paint Marine Representatives

Frank Commons is now marine sales representative for Pittsburgh paints in the New York district, operating from the Pittsburgh Plate Glass Co., Newark, N. J. office. Other Pittsburgh marine representatives include Thomas Fitzgerald of Brookline, Mass., who covers Maine, Massachusetts and Rhode Island; Frank Rowe of Baltimore, who handles the Baltimore-Norfolk territory; and C. B. Willis of Philadelphia who takes in the New Jersey shore.

Hood Footwear Gets Extensive Field Tests

Hood Rubber Company's B. F. Goodrich Division in Watertown, Mass., uses a 205-pound miss, elementary school children, college athletes, fishermen, farmers, and mailmen to determine wearability of their 1550 different styles, types and sizes of canvas, waterproof and industrial footwear under varying conditions of normal and abnormal usage. The firm also employs the usual laboratory tests.

Fishermen on the Boston Fish Pier test-wear various types of boots, while Chesapeake Bay fishermen test these boots over jagged oyster shells which are about as destructive as coral.

Winslow Has New Warranty on Filters

One of the strongest warranties ever offered to operators of marine engines has been announced by Charles A. Winslow, president of Winslow Engineering Co., Oakland, Calif., in support of the firm's complete line of oil filters and elements.

Under the terms of the new guaranty, all Winslow filters and elements are now backed by the Company's written warranty that it will not only make good on any of its own products if they have defects in material or workmanship, but also on any engines or other equipment which are damaged as a result of these defects.



Lawrence F. Southwick of Boston, left, New England district manager of the Plymouth Cordage Co. for the past six years, has been appointed assistant general sales manager and will make his headquarters at the Plymouth Cordage plant in Plymouth, Mass. He is succeeded as New England district manager by William C. Bryant, right, a native of Kingston, Mass. and formerly Pacific Coast district manager. Bryant has been with the Plymouth Company for 41 years.

Lives and Livelihoods DEPEND on S-N GEARS



for DEPENDABLE POWER TRANSMISSION

"We take great pride in our boat and equipment," says Frank Ivanovich, an owner of the "Maria Rose." First of the unlimited Alaskan Seiners with S-N Gears, it is now in its 4th year of flawless service. A 150 H.P. Lorimer Diesel, and S-N Gears with superior cone type clutch, was their choice.

for DEPENDABLE MANEUVERING

"For river and towing work, S-N Gears make a boat more dependable than with two-way engines," states Glenn M. Crain, owner of the "Smoky City," Pittsburgh. This stern paddle wheeler's Caterpillar Diesel is complemented by S-N air-controlled Gear that transmits power instantly and simplifies maneuvering.

for DEPENDABLE PERFORMANCE

"Tide work around wharfs makes it necessary to have a dependable reverse gear on our 135 H.P. Murphy Diesel," says R. A. MacLean of Harbor Supply Oil Co., owner of "Portland Gulf." S-N's balanced gear train assures long, trouble-free service under every condition.



MANUAL - HYDRAULIC - AIR-OPERATED GEARS, 4 to 1000 H. P.

The
S N O W - N A B S T E D T
G E A R C O R P O R A T I O N

P. O. Box 1753

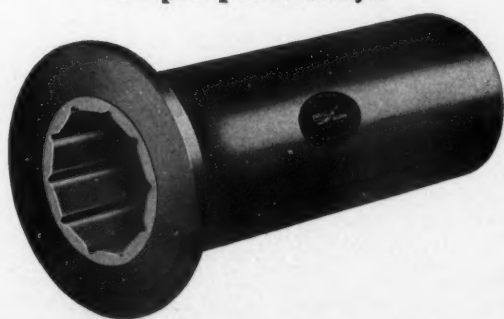
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Designed with features specifically for marine use.

B.F. Goodrich Cutless Bearings For Propeller Shafts



Soft rubber, water lubricated, Cutless bearings give years of trouble free service on fishing vessels. Resist heat, oil, and wear. Quiet and protect shafts too. There is a size and type to fit your boat.

Available at Boat Repair Yards and Marine Equipment dealers.

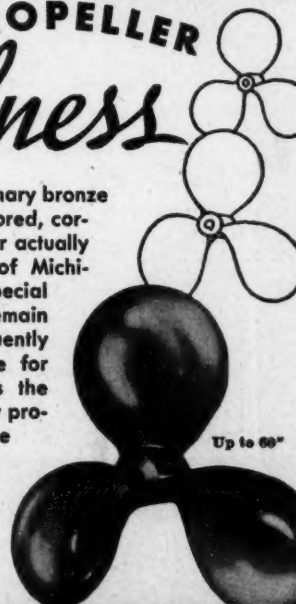
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TRIPLES PROPELLER *usefulness*

Where ordinary bronze propellers become discolored, corroded, nodule covered, or actually disintegrate, propellers of Michigan Wheel Company's special alloy—"MICHALLOY-K" remain sleek and bright... frequently providing perfect service for as much as three times the useful life of the ordinary propeller. For economy's sake and by far the finest performance you've ever experienced get a MICHIGAN WHEEL with "K" stamped on the hub.



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For any marine purpose . . .

CHRIS-CRAFT MARINE ENGINES

. . . are the world's best buys!



Model B, 60 h.p.

Model K, 95 h.p.



Model KL, 105 h.p.



Model KBL, 131 h.p.



Model M, 130 h.p.



Model ML, 145 h.p.



Model MBL, 158 h.p.



Model W, 160 h.p.

RUGGED Chris-Craft Marine Engines are specially built for marine use. Year after year, they provide superb performance, are economical, dependable, trouble-free. Chris-Craft Marine Engines are available in 60, 95, 105, 130, 131, 145, 158 and 160 h.p. Reduction drives and opposite rotation available for most models. For any marine use, your best marine-engine buy is Chris-Craft!

READ WHAT USERS SAY!



L. L. PIERCE

"Low operating costs and sure-fire dependability are all-important to me," relates L. L. Pierce, international ferry service operator, Youngstown, N.Y. "I get both from the 12-year-old Chris-Craft Marine Engines in my two boats! They carry passengers 16 hours a day, May to October, across the Niagara River. They function perfectly! We grind valves and put in a new set of points and plugs each year; that's all. This is why I consider Chris-Craft Marine Engines the best at any price!"

Fishermen! Chris-Craft Marine Engines can stand the gaff of tough, commercial operation and give you economical, trouble-free service! Ask your marine dealer, boat yard or boat builder for data, or write for **FREE** catalog. Dealer inquiries invited.

Chris-Craft

MARINE ENGINE DIVISION

CHRIS-CRAFT CORPORATION, ALGONAC, MICH.

WORLD'S LARGEST BUILDERS OF MARINE PRODUCTS

Texas Shrimpers Want More Dock Space at Brownsville

The Brownsville Shrimp Producers Association has asked to confer with Navigation District Commissioners of Brownsville on additional dock space for the port's steadily growing shrimp industry. Will Hardee, president of the Association, said present facilities are inadequate for the 250 trawlers operating out of Port Brownsville.

Shrimp catches increased to 1,120,000 lbs. in November, as compared to 596,800 lbs. for the comparable month in 1950. The October total ran a record 2,400,200 lbs., as against 1,548,200 lbs. taken in October of last year.

The District has Government approval dating back to 1947 for the dredging of a special shallow draft basin 1,500' long and 300' wide, some 9,000' east of the turning basin. This would provide an additional 3,300 lineal feet of dockage for shrimpers and other small craft, but the present emergency has shelved the project.

Production High Early in December

Landings of edible seafoods in Texas ports were at an all-time high the first half of December. During the first week of the month, 13,997 barrels of shrimp (2,940,000 lbs.) were landed and processed. Brownsville and Port Isabel processors reported 2,238,600 lbs.

Fin fish production was down during the first half of December, and few fresh fish were offered by wholesalers along the waterfront. Retailers priced flounders at 70¢ a pound, red snappers at 65¢, and large reds at from 60 to 65¢. No menhaden production was reported.

Building Trawlers for Western Shellfish

The Burton Construction and Shipbuilding Co. of Port Arthur has a contract for three completely-rigged shrimp trawlers for the Western Shellfish Co., Inc. Each trawler will be of welded steel construction 80' long, with a beam of 21' and draft of 9.5'. Delivery is to begin in February. The Burton Co. had delivered four large trawlers to Western Shell prior to this order.

Port Isabel Boat Owners Organize

The Independent Boat Owners Association of Port Isabel was organized recently at a meeting attended by some 50 people. The organization's primary purpose is to promote the best interests of the shrimp industry through cooperation.

Officers elected were: president, W. P. Holland; vice-president, Ralph Ladd; second vice-president, Nick McCarty; secretary-treasurer, Bill Ewing. Directors of the organization include Johnnie Wiesch, F. P. Tower, T. B. Mock, M. F. Branco, L. Anderson, Art Goolsby, Ernest Cateora, Frank Green, Roy Soderstrom, Frank Voltaggio.

"Miss Kathy" Makes Maiden Trip

Miss Kathy, new trawler of the Johnson Fish Co. of Rockport, recently made her first shrimping trip. This boat is 54' long with an 18' beam, and is powered with a 165 hp. General Motors Diesel.

Catches World-Record Amberjack

A 120½-lb. amberjack was taken early in December on snapper line by a fisherman on the banks some 50 miles east of Port Aransas. This fish exceeded the weight of the former world-record amberjack, caught off the Florida coast in 1937, by 14½ lbs.

Small "jacks" previously have been taken in Texas Gulf waters, as have tuna, but to date no attempt has been made to fish these waters for tuna and amberjack with commercial gear.

New Surrette Battery Distributor

The Houston Pump and Engine Co., Houston, has taken over the distribution of Surrette marine batteries for that area.

Fish Landings

For Month of December

Hailing fares. Figure after name indicates number of trips.

PORTLAND

Adventure (1)	31,200	Geraldine & Phyllis (2)	64,500
Agnes & Elizabeth (2)	54,000	Louise (2)	110,300
Alice M. Doughty (4)	76,700	Mary W. (1)	4,800
Althea (2)	13,200	Notre Dame (1)	28,300
Andarte (3)	71,300	Phyllis & Mary (1)	3,200
Araho (1)	12,000	Queen of Peace (1)	8,000
Carolyn & Priscilla (3)	57,900	Santina D. (1)	9,100
Challenger (1)	300	Sea King (3)	39,300
Cigar Joe (1)	10,100	Silver Bay (2)	180,900
Clara Louise (1)	143,000	Theresa R. (1)	76,800
Elinor & Jean (3)	40,300	Thomas D. (2)	144,200
Ethelina (3)	60,800	Vagabond (4)	81,600
Evzone (3)	18,000	Vandal (4)	118,700
Florence & Lucy II (1)	142,000	Villanova (1)	4,000
Frances R. (1)	2,900	Voyager (1)	43,400

Scallop Landings (Gallons)

Adele K. (1)	788	Nantucket (1)	1,111
Monte Carlo (2)	1,833		

NEW BEDFORD

Adventurer (2)	19,500	Janet Elise (2)	12,400
Anastasia E. (2)	11,300	Jennie M. (2)	9,500
Annie Louise (2)	14,100	Joan & Ursula (2)	26,200
Arnold (2)	11,600	June Bride (1)	9,300
Arthur L. (3)	53,200	Junojaes (3)	48,600
Austin W. (4)	14,500	Katie D. (1)	30,900
Barbara (3)	20,500	Lainee K. (3)	27,100
Barbara M. (3)	25,500	Liboria C. (3)	21,100
Barracuda (1)	6,500	Maria-Julia (2)	9,700
Capt. Deebold (2)	19,100	Martha E. Murley (1)	3,900
Carl Henry (1)	35,300	Mary & Joan (1)	34,500
Catherine C. (2)	61,100	Mary J. Hayes (2)	51,700
Chas. E. Beckman (2)	15,400	Minnie V. (3)	16,100
Dauntless (2)	35,500	Molly & Jane (2)	21,400
Doris Gertrude (2)	13,700	Noreen (2)	96,500
Dorothy (1)	3,600	Paulina (1)	4,100
Driftwood (2)	8,100	Pauline H. (3)	103,000
Edith (1)	5,000	Phyllis J. (1)	4,200
Elva & Estelle (2)	18,000	Rose Jarvis (1)	3,900
Elva L. Beal (2)	11,600	Rosemarie V. (2)	14,800
Etta K. (1)	4,000	R. W. Griffin, Jr. (1)	22,400
Eugene & Rose (2)	21,900	St. Ann (1)	18,000
Eunice-Lillian (2)	50,800	Santa Treza (1)	4,500
Falcon (1)	3,800	Sea Hawk (3)	20,100
Gambler (2)	31,600	Shannon (2)	16,500
Gannet (2)	76,500	Sonya (4)	42,600
Gertrude D. (2)	24,900	Stanley B. Butler (2)	71,000
Gladys & Mary (3)	60,500	Susie O. Carver (1)	12,000
Gloria F. (2)	40,200	Teresa & Jean (1)	31,100
Growler (3)	32,200	Theresa (1)	5,600
Harmony (1)	10,800	Three Pals (4)	19,500
Helen B. (2)	10,200	Two Bros. (2)	10,800
Hope (3)	10,100	Two Bros. (R.L.) (1)	12,000
Hope II (3)	18,500	Venture 1st (3)	68,800
Huntington Sanford (2)	16,000	Victor Johnson (3)	28,000
Idiewild II (2)	6,600	Viking (2)	46,400
Invader (4)	64,000	Virginia (3)	94,800
Ivanhoe (1)	5,100	Whaler (2)	51,500
Jacintha (2)	42,500	Winifred M. (1)	3,800

Scallop Landings (Gallons)

Abram H. (1)	900	Lubenray (2)	1,888
Agda (2)	1,375	Malene & Marie (2)	1,825
Alpar (2)	1,788	Malvina B. (1)	444
Amelia (2)	2,025	Maridor (1)	1,000
Antonina (1)	855	Marmax (2)	2,025
B & E (2)	1,002	Mary Anne (2)	1,791
Bobby & Harvey (1)	300	Mary Canas (1)	555
Brant (1)	650	Mary E. D'Eon (2)	1,600
Bright Star (2)	1,513	Mary J. Landry (3)	300
Camden (2)	1,950	Mary Tapper (2)	1,600
Carol & Estelle (2)	1,800	Moonlight (2)	1,139
Catherine & Mary (2)	1,444	Nancy Jane (1)	1,125
Charles S. Ashley (2)	1,322	New Bedford (2)	1,775
Christina J. (2)	1,625	Newfoundland (2)	1,456
Dorothy & Mary (2)	1,150	Pearl Harbor (1)	1,025
Eleanor & Elsie (1)	400	Pelican (2)	1,567
Elizabeth N. (2)	2,250	Porpoise (1)	1,125
Empress (2)	1,055	Red Start (2)	1,958
Ethel C. (2)	2,291	Ronald & Dorothy (2)	455
Fairhaven (2)	2,250	Rosalie F. (1)	600
Flamingo (1)	1,125	Sea Hawk (1)	133
Fleetwing (2)	1,513	Sea Ranger (3)	1,764
Francis J. Manta (2)	1,177	Smilyn (2)	1,513
Friendship (1)	1,050	Sunapee (2)	1,760
Janet & Jean (2)	2,225	The Friars (1)	1,000
Jerry & Jimmy (2)	2,250	3 & 1 & 1 (2)	1,050
Joseph & Mary (1)	77	Virginia & Joan (2)	1,177
Josephine & Mary (1)	1,170	Vivian Fay (2)	2,150
Julia K. (1)	350	Wamsutta (2)	1,776
Kingfisher (2)	1,513	Wm. D. Eldridge (2)	2,150
Linus S. Eldridge (2)	2,075	Wm. H. Killigrew (2)	2,250
Louis A. Thebaud (2)	1,100		

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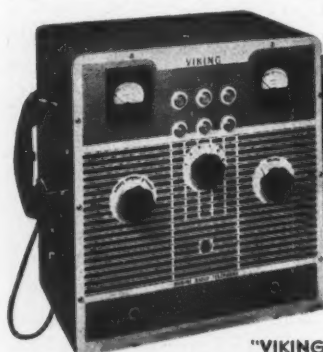
By power, old salts know we mean *holding* power—when it comes to anchors. And hundreds of thousands of commercial and pleasure boat owners have proved that Northill Anchors hold better. Yes, Northills hold fast in *any* blow. They break out easily because scientific design prevents them burying too deep. Light, easy to handle and stow. 3 to 105 lbs. for boats to 80 ft.

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BOSTON

Acme (4)	10,700	Maine (2)	111,100
Addie Mae (6)	7,600	Margaret Marie (4)	4,100
Adventure (2)	51,000	Marietta & Mary (1)	6,800
Agatha & Patricia (2)	33,800	Maris Stella (2)	108,400
Alphonso (4)	18,200	Marjorie (2)	21,600
Angie & Florence (2)	23,000	Marsala (2)	23,400
Annie & Josie (4)	6,700	Mary & Jennie (5)	9,800
Arlington (2)	188,400	Mary W. (1)	12,800
Assertive (2)	111,000	Mayflower (3)	13,500
Atlantic (2)	159,100	M. C. Ballard (2)	100,000
Ave Maria (Dragger) (1)	2,800	Michael G. (6)	10,700
Ave Maria (O.T.) (1)	51,000	Michigan (2)	163,300
Barbara C. Angell (2)	95,100	Nancy B. (1)	14,100
Bay (2)	153,900	Neptune (3)	218,500
Bonnie (2)	191,000	Nova Antonio (2)	6,900
Bonnie Lou (2)	106,800	Ohio (2)	96,200
Brighton (2)	110,800	Olympia (3)	68,400
Calm (2)	187,700	Olympia La Rosa (3)	44,000
Cambridge (2)	189,700	Pam Ann (2)	94,000
Capt. Bill (1)	16,400	Phantom (1)	90,000
Carmela Maria (2)	10,500	Plymouth (3)	173,100
Catherine B. (Dragger) (3)	64,000	Princess (5)	13,500
Catherine B. (L.T.) (1)	5,300	Quincy (2)	127,000
Catherine T. (2)	57,900	Racer (1)	45,500
Comet (2)	151,000	Raymonde (2)	65,800
C.R. & M. (1)	28,200	Red Jacket (2)	203,700
Crest (1)	96,500	Robert & Edwin (6)	4,500
Diana C. (3)	22,700	Roma (5)	8,400
Dorchester (2)	157,500	Rosalie D. Morse (2)	134,200
Drift (2)	208,000	Rosie (1)	1,800
Eddie & Lulu M. (4)	5,200	Rush (2)	153,300
Elizabeth B. (2)	80,800	Sacred Heart (5)	6,000
Esther M. (2)	168,300	St. Anna (1)	2,600
Falcon (2)	12,100	St. Francis (4)	7,000
Familia (2)	19,600	St. Joseph (5)	120,100
Flying Cloud (3)	220,000	St. Michael (2)	2,300
4-C-688 (3)	8,400	St. Rosalie (1)	43,300
4-G-370 (1)	1,800	San Antonio II (2)	17,400
4-G-673 (2)	5,800	San Calogero (8)	14,500
4-H-823 (1)	3,800	Santa Maria (2)	25,700
4-R-630 (3)	7,200	Santa Rita (2)	7,200
Francesca (2)	4,400	Santa Rosalia (2)	7,200
Francis L. McPherson (1)	73,500	Sarah M. (2)	1,300
Gaetano S. (1)	43,200	Savola (2)	10,600
Iva M. (1)	4,100	Skulligolee (1)	39,000
J. B. Junior (O.T.) (2)	145,000	Surge (2)	196,500
Jennie (1)	800	Texas (2)	107,200
Jennie & Lucia (1)	13,000	The Albattross (2)	119,000
Joan & Tom (1)	12,300	Thomas Whalen (2)	137,800
Joe D'Ambrosio (3)	8,500	Triton (2)	168,600
Josephine F. (1)	5,600	Uncle Guy (1)	14,900
Josephine P. II (3)	62,900	Victory (1)	10,500
Leonarda (6)	6,600	Wave (1)	97,000
Leonard & Nancy (2)	44,700	Weymouth (3)	199,800
Little Nancy (2)	27,800	Wm. J. O'Brien (2)	145,600
Little Sam (2)	18,700	Winchester (2)	132,200
Lucky Star (2)	73,500	Winthrop (2)	191,900
Mabel Mae (2)	106,700	Wisconsin (3)	249,700
Madonna De Trapani (5)	14,900	Yankee (2)	50,900

STONINGTON, CONN.

America (9)	13,300	Mary A. (5)	5,200
Bette Ann (8)	6,500	Mary H. (6)	4,700
Carl J. (4)	11,900	New England (5)	16,700
Carol & Dennis (6)	37,500	Old Mystic (13)	19,600
Carolyn & Gary (8)	8,000	Our Gang (3)	17,600
Connie M. (8)	8,800	Portugal (5)	19,000
Fairweather (13)	20,800	Pvt. Frank Kessler (8)	38,100
Five Sisters (6)	10,900	Ranger (3)	15,900
Harold (11)	9,400	Rita (5)	5,200
Irene & Walter (11)	15,800	Russell S. (6)	27,300
Jane Dore (10)	10,400	St. Peter (10)	7,000
Lindy (3)	2,400	Theresa (5)	40,800
Lisboa (7)	5,300	Vagabond (12)	13,400
Little Chief (2)	2,200	William B. (9)	13,300
Mandalay (2)	6,500	Wm. Chesebrough (2)	4,000
Marlee (11)	13,100		

WOODS HOLE

Arnold (2)	5,800	Little Chief (1)	2,300
Automatic (2)	6,800	Madeline (2)	2,500
Dolly & David (1)	2,200	Papoose (4)	10,100
Doris & Gertrude (1)	10,000	Petrel (2)	14,600
Etta K. (3)	12,200	Priscilla (1)	5,800
Eugene H. (2)	73,700	Priscilla V. (2)	47,500
Gertrude D. (1)	2,600	Southern Cross (3)	11,000
Helen B. (1)	6,100	Susie O. Carver (1)	13,000
Irene (1)	4,700	Ted Lindbergh (1)	1,400
Jenny (1)	3,300	Three Bells (4)	11,800
June Bride (1)	200	William Chesebrough (1)	3,100
Kelbarsam (1)	1,700		

Scallop Landings (Gallons)

Daggy (2)	472	Pelican (1)	642
Florence B. (1)	200	Porpoise (1)	668
Miriam A. (1)	52	Sea Hawk (1)	955
Palestine (1)	982		

NEW YORK

Alvan T. Fuller (1)	36,500	Rainbow (3)	43,600
Beatrice & Ida (2)	61,000	Reid (1)	27,000
Buzz & Billy (2)	59,500	Richard Lance (3)	24,600
Edith L. Boudreau (1)	23,000	St. Rita (3)	42,800
Evelina M. Goulart (2)	82,500	Sally & Eileen (1)	13,000
Felicia (3)	141,500	S #31 (2)	44,000
Joseph S. Mattos (3)	66,900	Susan (1)	12,000
Katie D. (2)	66,500	The Queen (2)	42,500
Lorine III (2)	41,500	Theresa & Jean (1)	60,800
Mabel Susan (1)	4,000	Tina B. (2)	89,000
Olivia Brown (2)	69,500		

J. S. Darling

J. S. Darling, who had served as president of the Oyster Growers & Dealers Association since 1941 and had long been active in the affairs of both that organization and the Oyster Institute of North America, passed away on December 25 at his home in Hampton, Va. Mr. Darling also headed the oyster firm of J. S. Darling & Son, Hampton.

While president of the Oyster Growers & Dealers Association, Darling guided the organization through a major war and the succeeding recovery period with his sound judgment and foresight. With his passing, the seafood industry and particularly the oyster industry, lost a great leader and friend. His kindly and utterly fair approach to all problems earned the love and respect of all who were associated with him, and his death leaves the industry with a void not easily filled.



J. S. Darling

New York Scallop Landings (Gallons)

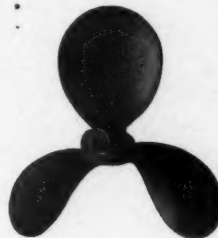
Benjamin Bros. II (1)	550	Muskegon (1)	40
Bright Moon (2)	850	Olive M. Williams (1)	300
Friendship (2)	710	Rockaway Belle (1)	550
Gud Yontiff (1)	300	Rosalee F. (1)	600
Miriam A. (2)	1,135	Whaling City (2)	1,175

GLOUCESTER

American Eagle (4)	37,000	Margie & Roy (1)	500
Anna Guarino (4)	8,500	Margie L. (2)	3,000
Ann & Marie (3)	3,000	Olive M. Williams (1)	19,500
Annie (3)	7,000	Marie & Winifred (1)	15,000
Annie II (2)	2,000	Marion & Alice (1)	104,000
Anthony & Josephine (5)	17,000	Mary (4)	11,500
Baby Rose (1)	122,000	Mary Alice (2)	2,000
Benjamin C. (1)	210,000	Mary & Josephine (2)	395,000
B. Estelle Burke (1)	101,000	Mary E. (2)	5,500
Bonaventure (1)	150,000	Mary F. Curtis (1)	125,000
Brookline (2)	220,000	Mary Jane (1)	80,000
California (2)	24,000	Mary Rose (1)	130,000
Calista D. Morrill (1)	1,500	Mary W. (1)	13,000
Capt. Drum (3)	26,000	Michael F. Dinamore (1)	74,000
Cara Cara (2)	230,500	Minkette (1)	1,200
Carlo & Vince (3)	35,000	Minkette 1st (1)	1,000
Catherine (1)	2,000	Mother Ann (1)	212,000
Catherine Amirault (1)	170,000	Natale III (4)	64,000
Charlotte M. (1)	132,000	No More (2)	2,500
Chebeague (3)	8,500	Novelty (1)	5,000
Cigar Joe (2)	6,000	Nyoda (2)	10,000
Clipper (1)	155,000	Paul Howard (1)	125,000
Columbia (1)	102,000	Phillip & Grace (2)	244,000
Conquest (1)	97,000	Phyllis & Mary (2)	21,000
Curlew (1)	160,000	Pilgrim (1)	153,000
Dartmouth (2)	147,000	Pioneer (1)	3,000
Dawn (4)	21,500	Positive (1)	115,000
Dolphin (1)	95,000	Princess (1)	2,500
Doris F. Amaro (2)	35,000	Priscilla (3)	3,000
Eleanor (3)	22,000	Puritan (1)	110,000
Eleanor Mae (4)	13,000	Rita B. (1)	99,000
Emily H. Brown (1)	182,000	Rose & Lucy (4)	50,000
Estrella (1)	195,000	Rosemarie (2)	24,000
Eva M. Martin (1)	2,000	Rosie & Gracie (2)	38,000
Falcon (1)	4,000	Sacred Heart (5)	15,000
Florence & Lee (1)	150,000	St. Anthony (1)	160,000
Frances R. (3)	39,500	St. John (4)	6,000
Francis L. McPherson (1)	103,000	St. Mary (4)	52,000
Frankie & Jeanne (1)	3,000	St. Nicholas (1)	187,000
Gaetano S. (1)	115,000	St. Peter (2)	19,000
Golden Eagle (1)	122,500	St. Peter II (1)	140,000
Hazel B. (2)	172,000	St. Providenza (6)	24,500
Holy Family (1)	125,000	St. Victoria (1)	40,000
Holy Name (1)	4,000	Salvatore (2)	3,000
Ida & Joseph (1)	10,000	Salvatore & Grace (3)	19,000
Immaculate Conception (4)	27,000	Santa Lucia (3)	14,000
Irma Virginia (2)	4,000	Santina D. (1)	26,000
Jackie B. (3)	22,000	Sebastiana C. (2)	20,000
Jackson & Arthur (4)	10,500	Serafina (2)	33,500
J. B. Junior (6)	50,000	Serafina N. (4)	51,500
Johnny Baby (4)	6,500	Serafina II (4)	51,000
Joseph & Lucia (1)	95,000	Sunbeam (1)	23,000
Josie II (4)	19,000	Sunlight (1)	150,000
Julie Ann (1)	180,000	Superior (1)	80,000
Killarney (1)	145,000	Sylvester Whalen (1)	160,000
Kingsfisher (1)	225,000	Theresa M. Boudreau (2)	300,000
Lady of Good Voyage (1)	99,000	Trimembral (4)	13,000
Linda B. (4)	20,000	Viola D. (1)	4,500
Little Flower (5)	45,500	Virginia (1)	2,500
Little Joe (1)	5,000	Virginia Ann (1)	7,000
Lola T. (1)	4,000	White Owl (2)	6,000
Madame X (2)	1,500	Wild Duck (1)	115,000
Malena II (1)	3,000	Yankee (1)	16,000
Manuel F. Roderick (1)	80,000		

EXPERT RECONDITIONING ON PROPELLERS OF ALL SIZES

PRECISION EQUIPMENT and expert workmen insure an accurate repair job. We guarantee our work. Estimates gladly furnished. Send your damaged propeller to us for free inspection and report.



WE MANUFACTURE PROPELLERS
52" DIAMETER AND LARGER

HYDE PROPELLERS



HYDE WINDLASS COMPANY, Bath, Maine



NYL-CATCH netting is designed for long life and dependable service under all fishing conditions, because it is made of continuous filament Nylon. Check these advantages:

- Lighter in weight
- Needs no drying, no preservatives
- Highly resistant to destructive marine growths
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Catch a boatload with Nyl-Catch Netting

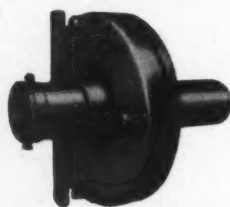
NEWTON CLUTCHES

Formerly made by Kinney

Now available in a Full Line

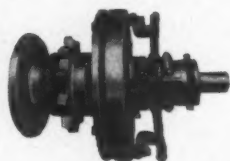
The well-known Kinney Clutches now are being manufactured by Newton Clutch Company, and have been re-named Newton Clutches.

Built to the same high standards of quality and precision manufacture which have made Kinney clutches famous for 40 years, the Newton line is ruggedly fabri-



cated for long life and trouble-free service.

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Boston Haddock Price Reaches All-Time High in December

Boston fish dealers reported that the 28¢ price being paid for haddock last month was the all-time high for this variety. The peak in the haddock scrod price at Boston was reached on the 27th when 21¢ a pound was the price quoted.

Prices continued high early in January. Haddock started at 24¢ per pound on January 2, haddock scrod at 20¢ a pound, cod from 15 to 16¢, while pollock brought \$6.90 per 100 lbs.

Boston Fish Pier had 13 boats with 253,000 lbs. fresh fish at market opening January 3, when lemon sole reached a new high of 40¢ per pound.

Fund for Survivors of Men Lost with "Lynn"

The Boston fishing industry had raised \$17,900 as of December 13 for the wives and children of the 15 men drowned when the trawler *Lynn* was sunk in a collision with the oil tanker *Ventura* the latter part of November. A goal of \$30,000 had been set, to be reached by the deadline of December 15.

Fisherman's Sister Sues Boats' Owners

A civil suit for \$200,000 was filed December 12 in Federal Court by a sister of Edward A. McNamara, 51, of Boston, one of 15 men drowned Nov. 28 in the collision of the Boston trawler *Lynn* and the tanker *Ventura*. The suit was the first arising from the accident in outer Boston harbor, in which the trawler was sunk.

Named as defendants were the *Lynn's* owner, R. O'Brien Co., and the *Ventura's* owner, listed both as the Texas Co. and Texas Oil Co.

"Ave Maria" Gets New Engine

A model NHMS Cummins Diesel, rated 175 hp. at 1800 rpm. with 3:1 Snow-Nabstedt reduction gear, has been installed in the dragger *Ave Maria*, owned by Capt. Frank Marino of Boston.

Correction

The John Fulham referred to in our December issue in the article entitled "New England Producers Seek Relief from Imports", is not connected with Fulham Brothers, Inc. of Boston, as was stated, but is with Fulham and Herbert Fish Co., also of that city. His full name is John A. Fulham.

Fisherman Found Dead on Trawler

Fred Hurley, crew member of the trawler *William J. O'Brien*, was found dead aboard the craft on December 20, apparently the victim of coal gas fumes. He was last seen aboard the *William J. O'Brien* by the watchman, Stephen Puddistes of Dorchester. Puddistes told police he and Hurley were the only ones aboard the trawler, as other crew members had gone home after the vessel returned from the fishing banks.

South Carolina Oystermen Find Bivalves Scarce in Edisto Island Area

Bunch oysters, commonly called "racoons", are still fairly plentiful in the Edisto Island area, but they are as sharp as razors and dangerous to handle. Furthermore, they lack the flavor of the deep-water variety. Gone are the days when a man could pick up a bushel or so of select oysters on one tide. Now he would be lucky if he found a half peck, and the chances are many would be undersize.

Attacked by borers and starfish, smothered with mud deposits, and taken in large quantities by hungry human beings, the local oyster supply has been seriously depleted in recent years. Often the oyster factories cannot find enough to fill their boats, and sometimes the plants have to close down before the season is over.

Fishing Boat Design

(Continued from page 17)

in these bigger waves. The length and height of the waves and the relation between wave-period and wind velocity varies in open and coastal water, depending upon the length of time the wind has blown and other factors.

It has been suggested that an agreeable period of roll over and back is equal to as many seconds as the boat is broad in meters. The stability is then sufficient and the boat's movements are at the same time agreeable. If, for instance, the period is longer than that prescribed by the above rule the boat feels unsafe and the stability may be too low. In such cases a careful stability calculation is recommended so that corrective measures may be taken.

The feeling among many fishing-boat operators that boats with high stability, much ballast, and a broad beam are the most stable is understandable. Nevertheless it is incorrect, as closer study of the problems involved has shown.

Many other factors influence seakindliness. The problems are by no means solved, even for bigger vessels. For instance, there are many problems related to the application of dampening devices, the body shape above the waterline, the minimum freeboard and type of sheer, and those connected with coupled motions. The shape of a boat has an important effect upon its seakindliness, but the arrangement and distribution of weights also have an influence. It is felt that fishing boats with the main weights (such as engines and deckhouses) aft are seakindlier ships than those carrying these weights forward.

Hull Shape Affects Speed

Speed is very important in fishing boats. Sometimes it is felt that fishing boats have larger engines than necessary and that these engines take up valuable space, weigh down the hull, and increase the fuel consumption more than they contribute to a higher speed. But it is not only the size of the engine which determines the boat's speed; the shape of the hull is also important.

Complete and reliable trials take time. They must be carried out on a measured mile, and runs must be made in both directions in order to compensate for the influence of current and wind. They can be especially valuable if the fuel consumption is also measured.

Trials with the *Halfish*, Canadian wooden dragger show clearly that the consumption does not increase proportionately with the speed but at a much faster rate. At 8.5 knots the boat can travel 1.24 miles per 10 liters of fuel but at 9.36 knots, at 10 percent higher speed, it can only travel 0.89 miles per 10 liters. The distance at 8.5 knots on the same fuel is about 40 percent longer. Fuel consumption is an indication of how many horsepower the engine develops and hence the actual engine power can be calculated from fuel measurement. This is called the brake horsepower (BHP).

Careful trial tests are highly recommended for all kinds of fishing boats because they indicate to designers, builders, and owners the maximum output of the engine, whether alteration of the hull shape has been good or bad, and whether the propeller is suitable. The power curve from the test can indicate to the operator the boat's most economical sailing speed and, if posted in the steering house, it can be a daily reminder to the skipper.

Thailand Scientist Visits United States

Larger Thailand fish catch is object of program now underway in that country. The program is designed to provide a 3000-pound per acre fish production annually in Thailand inside waters, according to Boon Indrambarya, director general of the Department of Fisheries, Bangkok, Thailand. The Thailand scientist, a graduate of Cornell University, visited this country recently and conferred with Dr. James Nelson Gowanlock, chief biologist of the Louisiana Department of Wild Life and Fisheries.

Thailand, with a population of 18 million, has a coastline of 2500 miles, and its shrimp production is comparable to that of Louisiana waters.



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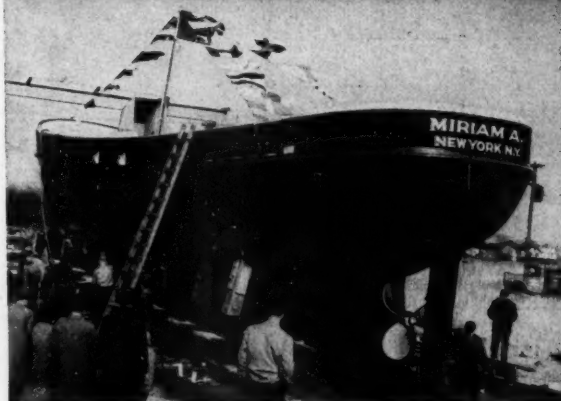
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Canadian Report

By C. A. Dixon

The Canadian sardine canneries were on the beam the day after Christmas when supplies of excellent sardines were received. Some of the weirs in the Deer Island area provided their owners with sizeable catches of fish on December 26, one having taken close to 90 hogsheads. The sardines are still hanging around in the St. Andrews and Deer Island areas and it is expected that later on in the Winter the fish will be present along the north shore of Charlotte County, providing an opportunity for the purse seiners to get into action.

The weather has been quite cold along the coast during the holiday period, and this condition is more favorable for purse seining than warmer weather when the fish schools fail to bunch up. The Fall of 1951 was the best on record for sardine production. The fish, of excellent size and quality, provided the canners with the finest output of canned goods ever to take place in the history of the industry. So far this Winter damage to weirs has not been too great to preclude the getting of the properties into fishing condition by early Spring.

Scallop Landings Satisfactory

With the resumption of fishing activities following the holidays, many fishermen are turning to scalloping. So far, scallop landings have been satisfactory, although the shellfish run smaller than usual, and the expense of getting them shucked has risen to 75 cents a gallon. All the Fall, fishing was best in the L'Etang River area where a new scallop bed appeared as if by magic, after the basin area had failed to produce many shellfish for a long period. Where the scallops came from or how they developed is a matter for speculation, but the fact remains that the bivalves stage a get-together quicker than scat, and the immature scallops develop very rapidly.

The scallops have been bringing \$4.50 a gallon, which is less than in some previous seasons. One boat reported having caught 100 gallons in a single day, however, and at this rate, despite the expense of shucking, a fairly comfortable margin of profit is assured the draggers.

N. B. 1951 Landings Valued at \$20,000,000

For the first time in the 350-year-old fishing industry of New Brunswick total landings brought in more than \$20,000,000 in 1951. The increase was attributed largely to sardines and flounders, but there were substantial increases in shellfish, lobsters having been valued at \$4,000,000. In addition to all this, an estimated expenditure of \$1,000,000 was noted in industrial expansion in New Brunswick which included 15 or 20 smoked fish plants along the Northumberland Strait shore. Extensions to existing smoke houses also were made, and a number of new pickled fish curing plants were erected. The modernizing of plants in the Passamaquoddy Bay area saw extensive additions being made to sardine canneries.

The general expansion also included new shipyards at Black's Harbor and Lower Caraquet, which build wooden fishing craft. At the Black's Harbor plant one of the finest sardine boats in the New Brunswick fleet is nearing completion. It is being built for H. W. Welch, Ltd., of Fairhaven. The boat, of sturdy construction, but with a bottom which should admit of extra speed, will have a carrying capacity of 60 hogsheads of sardines. The builder is Albion Richardson, superintendent of Connors Bros., Ltd. shipyard at Willingdon, Black's Harbor, N. B.

Capt. Payson Green, Back from Newfoundland

Just prior to Christmas, Capt. Payson Green and his *Pride of Fundy* arrived at Fairhaven, Deer Island, N. B., after having been in Newfoundland for some months, freighting fish for the Connors Bros., Ltd., plant in that Province. Ordinarily, Capt. Green does a general freighting business for H. W. Welch, Ltd., of Fairhaven.

Vineyard Bailings

By J. C. Allen

We wrote up this log as the New Year drew closer. Still hull-down below the skyline, we knew cussed well that it would be abreast before we knew it. As skipper of this column, for the past month we have observed a row of things that seemed interesting and significant to us. We plan to lay 'em end-to-end in this report. We could talk of sole and dabs and fluke and hell-knows-what, but we will merely state that luck held about on a level, right up close to Christmas.

The bay-scallopers seem to think that they have a record set in at least three of the Marthas Vineyard towns. Barring some interference, they will fish until Spring. Womenfolk have joined the men in larger numbers than ever before, and the income of the Island, for the time of year, has probably been the largest since the place was discovered.

Chilmark Women Get Scallop Licenses

Mainland newspapers have raised plenty of noise about the Chilmark women asking for commercial scallop licenses. They held a special Town meeting to vote on the matter, and, of course, the women got 'em. They could have had 'em years ago, if they had asked in any annual Town meeting, but they didn't. Women have been holding scallop licenses in some Vineyard towns for at least fifteen years.

All Kinds of Weather

During the week of the 19th of December it looked as if the wind-up of the Fall had arrived, and Winter had really begun. But you never can tell.

For example, the nearby mainland was covered with snow and ice. We didn't have snow enough to track a mouse in, and no ice at all. But we had rain enough to start a second Deluge, and a gale of wind; and in the middle of a cussed easterly, the temperature dropped 18 degrees in four hours, it thundered and lightened the worst anybody ever saw, and a baby cyclone swooped down on a Summer colony and tore three houses and three garages all to hell.

Oak Bluffs Lobster Hatchery Paying Off

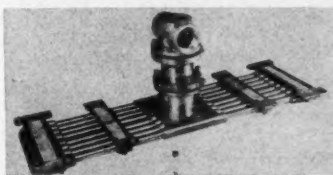
We would like to blow our horn a mite for the State lobster hatchery at Oak Bluffs, on Marthas Vineyard Island. John Hughes, the lad in charge, has excited our admiration ever since he took over the quarterdeck, and Francis Sargent, State director of marine fisheries, has displayed real honesty and common sense.

The point is, neither one of 'em has pumped any wind. They haven't made any fantastic promises. They have simply said that they were going to try to find out something, and they have shown a willingness to work. Now comes what we figure is the first pay-off.

On December 6th, a breeding lobster in the tanks shed its shell. Ordinarily, a lobster kept in a tank for months wouldn't shed at all. But this one, like the rest, had been fed and she had grown. She shed her shell and lived, which is again something unusual, and her new shell is hardening as fast as if she were overboard. This is only one of several breeding lobsters that have shed in the tanks and lived, and we figure from this that the feeding problem is solved, where adult lobsters are concerned, and water temperatures, as well. It is a step in progress.

Lobster fry is, of course, the main problem, and here again the feeding, and only the feeding, is the difficulty. Many thousands of lobster fry have had to be liberated. The critters eat each other when they get to a certain stage. But under special treatment they have been raised up to two inches in length, and when they reach that size they are no longer cannibalistic. Given more time, we believe that this hatchery will lick the lobster problem.

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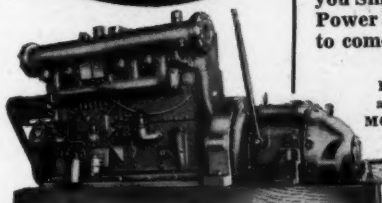
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Cunningham Mfg. Co., 4200 West Marginal Way, Seattle 6, Wash.

WINCHES

Bodine & Dill (formerly Hettinger Engine Co.), Bridgeton, N. J.

Hathaway Machinery Co., Inc., New Bedford, Mass.

Stroudsburg Engine Works, 62 North 3rd St., Stroudsburg, Penn.

WIRE ROPE

American Steel & Wire Co., Rockefeller Bldg., 614 Superior Ave., Cleveland 13, Ohio

Bethlehem Steel Co., Bethlehem, Pa.

*John A. Roebling's Sons Co., Trenton 2, N. J.

*Wickwire Spencer Steel Division, Palmer, Mass.

Revised Import Quota Plan

(Continued from page 9)

sumption in 1951 of 228,500,000 lbs.—imports would have supplied 35 percent of the market in that year. Thus, 35 percent of actual consumption in the United States would become the limit of imports in any succeeding year under the proposed quota, unless special adjustments were made.

The New England industry proposed two alternatives for keeping the quota within specified limits. Because adjustments might be necessary during the year as figures of domestic production and of imports became available, the industry said an annual quota, divided into quarterly quotas, would probably be the better method. The quarterly quotas would be based upon the import rather than the seasonal production pattern.

The other method, known as an "undivided annual quota," would involve keeping a record of domestic production and imports in the course of the year, estimating domestic production on Sept. 1 for the entire year, and then setting total import volume for the year. If imports already had reached that volume, they would be cut off at that time for the rest of the year.

Cold Storage Holdings

Whether a quarterly or an annual quota were established, Strackbein contended, the trend of cold storage holdings should play an important part in determining trends ahead. The character of seasonal variations could easily be established, he said, since there is evidence of seasonality in these holdings.

The New England industry proposed further flexibility, in addition to that embodied in the quota which would permit imports to rise or fall in accordance with the trend in domestic production and consumption.

Several conditions, Strackbein said, might arise to the injury of the consumer or the industry unless measures were ready to meet unforeseen trends, such as a reduction in the domestic catch of one or another of the various species of groundfish. If the domestic industry could not make up the deficit, he said, provision should be made to reopen the quota for adjustment.

At the same time, Strackbein pointed out, a decline in domestic demand might result in a surplus. It would be necessary in this situation, he said, to estimate future actual consumption so that the annual quota of imports could be adjusted in time to lift the pressure of the mounting surplus. This trend would be reflected, he explained, in a combination of the cold storage holdings and price level.

Tariff Commission action on the New England industry petition is not anticipated for at least eight months.

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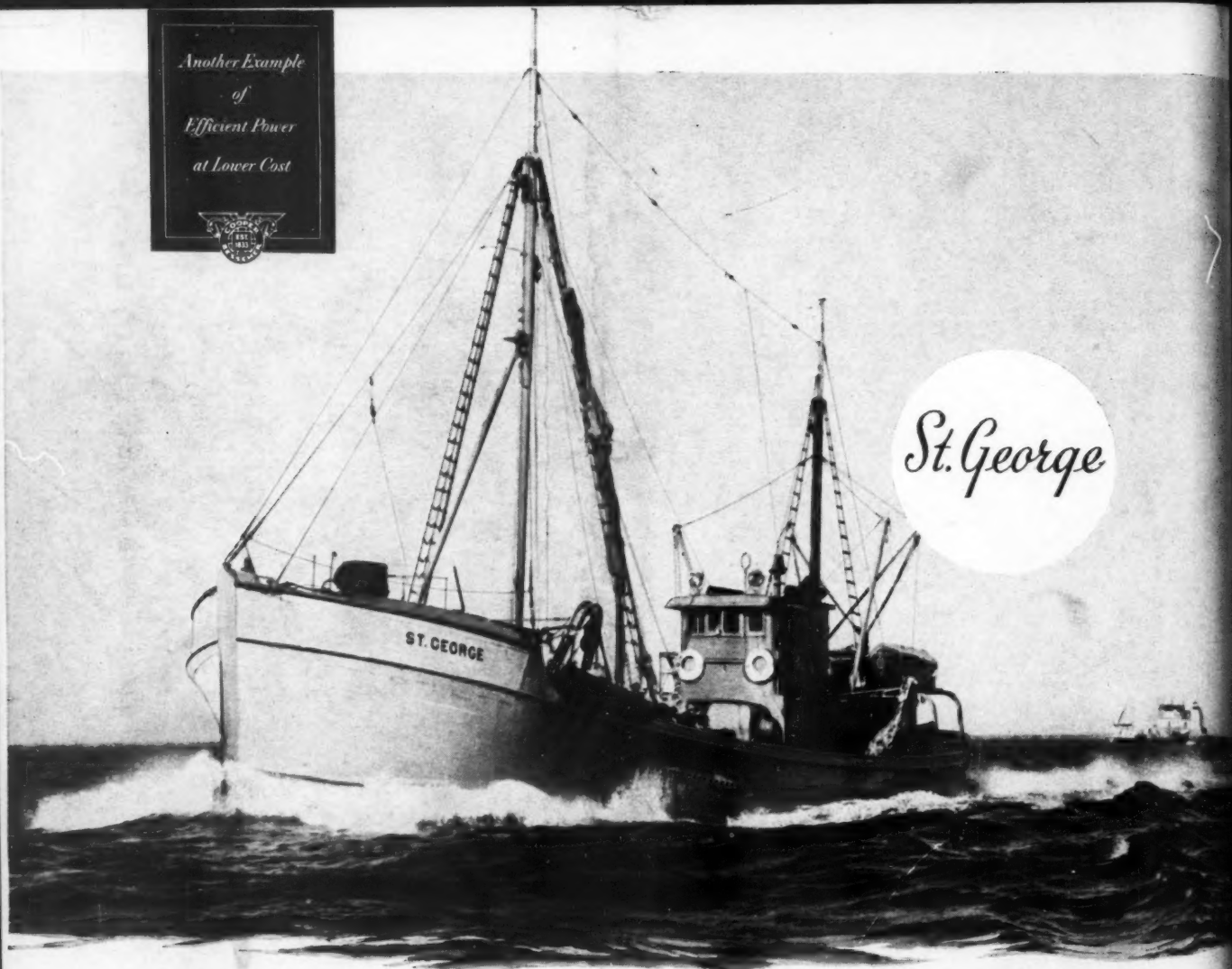
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